# A GUIDE TO THE ANTIQUITIES
# OF THE EARLY IRON AGE

## IN THE DEPARTMENT OF BRITISH
## AND MEDIÆVAL ANTIQUITIES

PLATE I.  ENAMELLED BRONZE SHIELD, THAMES AT BATTERSEA ($\frac{1}{5}$).

BRITISH MUSEUM

# A GUIDE
# TO THE ANTIQUITIES OF
# THE EARLY IRON AGE

## OF CENTRAL AND WESTERN EUROPE
## INCLUDING THE BRITISH LATE-KELTIC PERIOD)

## IN THE DEPARTMENT OF BRITISH
## AND MEDIÆVAL ANTIQUITIES

WITH 7 PLATES AND 147 ILLUSTRATIONS

# PREFACE

THE national collection of Late-Keltic antiquities, as instituted by the late Sir Wollaston Franks, first Keeper of this Department, is now published as a whole, in continuation of the series of prehistoric Guides. Its special interest is to be found in the fact that here for the first time is seen a form of art peculiarly British, and distinct from contemporary styles on the Continent. Moreover, it may be claimed that the Late-Keltic artist in Britain reached a higher level than his kinsman abroad.

The acquisition in 1901 of the Gaulish collection formed by M. Léon Morel, of Rheims, has practically completed the Museum series of Early Iron age antiquities from western Europe, and the connexion between Gaul and Britain at that period is now fully illustrated. As remains of the earliest Iron age in Greece and Italy are not definitely marked off from those of the historic period, corresponding collections from classical lands must be sought in the adjoining Department of Greek and Roman antiquities. But an attempt is made in the Introduction to show how the Mediterranean culture affected the Keltic peoples north of the Alps; and a broad classification of Italian brooches has been introduced, as several specimens are known to have been found in our own country.

A survey of Britain's Early Iron age would be incomplete without some notice of the coinage, and as exhibition space is not available in the Department of Coins and Medals, a series of reproductions has been placed in the Late-Keltic section and labelled to show the development and variety of the types : while the tribal areas of the period are shown in maps of Gaul and Britain. The antiquities described in

these pages are somewhat scattered for various reasons, and references to particular cases are comparatively few, as the collection is more than usually subject to re-arrangement.

The Trustees are indebted to their colleague Sir John Evans for the loan of figs. 86–88, and to his son, Dr. Arthur Evans, for the photograph of the Marlborough bucket (fig. 25), as restored under his supervision. The Council of the Society of Antiquaries has kindly sanctioned the use of figs. 22, 23, 65 and 147. With the exception of a few gold coins, and the figures marked with an asterisk (*), all the objects represented belong to the Museum collections; and the scale is indicated, where practicable, by a fraction, which refers to linear measurement. Thus, $\frac{1}{2}$ means that the original has twice the length and breadth, but four times the area, of the reproduction.

The Guide has been written by Mr. Reginald A. Smith, Assistant in the Department, under my direction.

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DEPARTMENT OF BRITISH AND MEDIÆVAL
ANTIQUITIES AND ETHNOGRAPHY.

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Early period of Roman Empire

Early Iron Age in Europe

# INTRODUCTION

Though antiquities of the Early Iron age discovered in these islands do not compare in number or variety with continental remains of the corresponding period, they yet present many features of interest and include several works of art that have never been surpassed in their particular sphere. Before dealing with the objects themselves it may be well to define the period represented, and to connect the present inquiry with a sketch of the earlier civilization given in the *Guide to the Antiquities of the Bronze Age* in this Department.

In one sense of the term, the civilized world is still in the Iron age, while in some remote regions that stage of culture has not yet been reached. The use of metallic iron for domestic, agricultural, and military purposes is of long standing in Europe, but in many areas there was evidently a time, to be determined within a century or two, when iron was unknown or unappreciated, and bronze was the staple metal for most purposes of life. The earlier metal, of course, continued in use for artistic purposes, but the Early Iron age is marked by a general adoption of iron for weapons and utensils of everyday use. Apart from Egypt, where conclusive evidence has not yet been procured, and in certain other areas at present almost inaccessible to archaeological investigation, the Iron age opened about the same time in central and western Europe, but the conditions in Greece and Italy, the two countries which are usually regarded as the home of European culture, are still under discussion. Though a precise chronology is impracticable in questions of this kind, 1000 B.C. may be taken as an approximate date for the close of the exclusive Bronze culture in classical lands, while north of the Alps there seems to have been a transition period of several centuries, and the full Iron age was not entered upon by most of the Keltic and Teutonic peoples till about five hundred years before the Christian era. On the Continent two stages have been noticed, and named after important discoveries at Hallstatt in the Austrian Tyrol and at La Tène in Switzerland; the former including the transition from bronze to iron, and the latter corresponding roughly to what in England is

B

known as the Late-Keltic period. This name was bestowed
by the late Sir Wollaston Franks on British antiquities of
the Iron age preceding the Roman occupation of this country ;
and in more than one particular the title is extremely appro-
priate.

In the *Bronze Age Guide* (pp. 15, 21) something was said
on the vexed question of the Kelts in the British Isles, and
attention drawn to the prevailing confusion of language and
blood-connexion as a criterion of nationality. The question
is further treated in the present work (pp. 47, 81), but it may
be stated at once that the Bronze age inhabitants of this
country seem to have been the most closely connected with
the true Kelts of the Continent, that is, with the ancestors of
the race inhabiting *Gallia Celtica* in Caesar's time. The
physical characteristics were approximately the same on both
sides of the Channel before the intrusion of the half-Teutonic
Belgae, who in the Iron age conquered north-east France and
southern Britain. The Brythons, whose name is connected
with that of the island, seem to have been the forerunners
of the Belgae (p. 83); but we may reasonably suppose
that the earlier inhabitants were not entirely driven out.
Here, as in Gaul, they probably served their alien masters in
their old homes ; and on these grounds the Iron-age antiquities
of Britain may well be Keltic. Late they also are in two
respects. They succeed the Keltic civilization of Bronze,
and are to a large extent a subsequent development of the La
Tène culture of the Continent (p. 29). Just as the neolithic
culture reached its highest pitch of excellence in remote
Scandinavia, when southern lands had long passed into their
Bronze age ; so the Iron age culture found a splendid consum-
mation in our islands at a time when the arts of Europe had
been reduced to a dead level by the overpowering influence
of Roman taste.

It must, however, be confessed that subsequent discoveries,
at Aylesford and elsewhere, of remains that are presumably of
Belgic origin (p. 83), have rendered the term Late-Keltic less
appropriate to the best and most characteristic productions of
early British art. But as the term is now established it will
be sufficient to point out its limitations, and to propose for
the use of any who might deprecate the confusion of Kelts
and Belgae, the corresponding stage of ' La Tène.' In fact,
the suggestion has already been made to add for this purpose
a fourth to the three stages generally recognized (La Tène I,
II, III).

The archaeological theory that, at least in Europe, the invention and working of copper and bronze followed the age of Stone or the neolithic period, and that the subsequent discovery of iron superseded the use of bronze for many purposes of daily life, has been found to work satisfactorily, and to accord with the great majority of recent discoveries. It must, however, be understood that the date at which iron was first worked is not by any means determined, and local conditions no doubt had much to do with its invention. Thus there seems to have been no Bronze age in Africa, except in Egypt; and in Case J (*Prehistoric Room*) is exhibited a lump of what is now iron rust which was found wrapped up in a fabric with a mirror and tools of copper belonging to the 6th dynasty (3300–3100 B.C.). Nor is this an isolated case (*Bronze Age Guide*, p. 2), and the evidence at present available suggests that in Egypt iron was known as early as bronze or copper. The case is different in Europe, and the succession of metals that have given their names to the prehistoric periods can be more precisely determined. If iron had been known in Europe much before the end of the Bronze age, it is most improbable that every trace of it should have disappeared through the action of air and moisture, while iron objects, which are known to be nearly 3,000 years old, have been found in such quantities and in such good condition at Hallstatt and similar sites.

There is nothing in the actual working of iron that necessitates a comparatively late date in the history of civilization: its production is, in fact, one of the simplest metallurgical processes, and the belief that fusion by the application of great heat was necessary is quite erroneous. Prof. Gowland asserts that the method of iron-smelting in Europe dates only from the seventeenth century; and as the aim of earlier iron-workers was only to produce wrought iron, the metal was always obtained in a solid mass, and not as molten cast-iron. The discovery of the art may have been due to the accidental presence of pieces of rich iron ore among the embers of the domestic fire, and these, after reduction to the metallic state, cannot have failed to attract attention and stimulate curiosity. Another possible explanation is that primitive man, having already obtained metallic copper from certain rocks, experimented with others in his rude furnace, and eventually struck on a deposit of ironstone.

More than one discovery has been made in Europe of prehistoric ironworks, but as yet the precise form of the

earliest furnace has not been established. Comparison with primitive methods surviving in other countries (as Japan) renders it most probable that the ore was at first reduced in a shallow hole in the ground, the blast being introduced over the edge. At a later date a development is seen in the Adriatic region and central Europe, where this cavity for the furnace was excavated in the steep side of a low bank, an opening being made for the removal of the iron, and the blast introduced at the bottom, either through the same or another opening. It is important to remember that the metal was never smelted, but always obtained from the ore as a solid mass of malleable iron.

Although there are various proofs that iron was produced in Britain centuries before the Roman occupation, no furnaces of the earliest period have been discovered; and it is therefore probable that the ancient Britons employed the simple low hearth resembling the Catalan furnace of the Pyrenees, which has been in use there from very remote times to our own day. The source from which Britain derived the furnace and art of extracting iron from its ores, seems to have been the Mediterranean region, either the eastern Pyrenees or northwest Italy; but it may also be reasonably held that the first iron-furnace of the Britons was derived from that used so successfully in the extraction of tin. It is not, however, probable that our islands were the earliest centre for the metal, and it is more important to notice that two of the earliest sites of ironworks in Europe are situated in the Danubian region, the district known as Noricum to the Romans, and within easy reach of the famous cemetery of Hallstatt. One is in the neighbourhood of Hüttenberg, in the upper basin of the Drave, Carinthia: the second on another tributary of the Danube, the Mur in Styria. In the Swiss Jura also are extensive remains of ancient ironworks, perhaps somewhat later than those just mentioned, but probably the source of the iron used so extensively at La Tène, and other localities in the neighbourhood, before the Roman conquest.

In the most recent scheme for subdividing the period named after La Tène, a place is found for the archaic Greek bronzes and pottery vases that were evidently imported into central Europe, and found for the most part in the neighbourhood of the upper Rhine and its tributaries. Dr. Paul Reinecke, of Mayence, does not treat this phase as a transition period from 'Hallstatt' to 'La Tène,' but gives it an independent existence as his period A. Following on this is

the century during which native art, inspired by classical models, began to show a decided individuality, the old motives appearing in a debased form more adapted to the Keltic technique. Dr. Otto Tischler called this the *Early* period of La Tène (La Tène I), which corresponds to the period *B* of Dr. Reinecke's system. Subsequent changes, to be noticed elsewhere, marked the remaining periods of La Tène, the *Middle* and *Late* La Tène of Dr. Tischler running parallel to periods *C* and *D* of Dr. Reinecke (Table, p. xii).

Having thus defined our terms, we may proceed to a sketch of European civilization during the Early Iron age, chiefly from the ethnological point of view, reserving the antiquities for discussion later, in the description of the Cases (p. 31). The subject is highly contentious at present, though there are hopes of a final solution at no distant date. While an attempt will be made to present a connected story based on propositions that are widely accepted, it must be remembered throughout that opposite views are taken by archaeologists of repute on nearly every important point, though it would be impossible to mention more than a few in a brief Guide of this kind.

The Hallstatt period (p. 34) includes not only the earliest Iron age, but the centuries of transition from the preceding age of Bronze ; and the earliest antiquities discovered in the Hallstatt cemetery go back to a time when there was a uniform civilization over most of eastern Europe. The Bronze age remains in Hungary may be taken as typical of a very large area extending from the Alps to the Baltic and even into Scandinavia ; and, as in Britain, burials of the later Bronze age were generally by way of cremation. The swords of the Bronze period over this area have a comparatively large grip, and contrast with the Mycenaean and other European types in this respect. This feature has been held to prove that the Hallstatt culture was indigenous, the cemetery containing many iron swords of ample dimensions which are evidently imitations of bronze specimens, and have even larger grips and pommels (fig. 27). It is not always possible to determine whether particular objects found there were from burnt or unburnt burials ; and, as far as numbers are concerned, there is little to choose between the two rites at Hallstatt. It has, however, been remarked that certain antiquities, among the latest discovered on the site, undoubtedly accompanied skeletons ; while on the other hand, a typical sword, with a blade of bronze, and therefore presumably earlier than those of iron,

as well as the only bronze spear-heads found, came from cremated burials. These facts go to show that in the Hallstatt period there was a change of culture rather than a change of race ; and that the Bronze age burial rite survived into the Iron age in this area, the inhabitants not being displaced by the introducers of iron.

There is another principle of division to be considered that may account not only for contemporary burials with and without burning, but also for the comparative poverty of the unburnt burials during the Hallstatt period (the iron-sword period, p. 34). Most of the valuables were derived from the graves in which cremated remains had been deposited, and it is reasonable to assume that, since funeral customs are closely connected with race, the ruling tribe or caste at Hallstatt were the descendants of the Bronze age population, while the poorer classes, who buried their dead unburnt, were of alien origin, perhaps imported to work in the famous salt mines of this area. A similar blending of the two rites was observed at Watsch and St. Margaret in Carniola, but the balance was on the other side, the unburnt burials being the richer and more numerous. At Glasinatz in Bosnia (p. 39), another site of the Hallstatt civilization, inhumations were sixty per cent. of the total, and the earliest objects were taken from such graves ; but these apparently inconsistent data have been explained, by supposing the Illyrians (who with the Ligurians are known to have buried their dead unburnt) were settled in these regions as the subjects of the cremationists, who were not always numerically superior in the Balkan peninsula. The richer unburnt burials at Glasinatz are still a difficulty, but a small one compared with that of deciding the nationality of the dominant race.

A certain similarity between the civilization revealed at Hallstatt and that described in the Homeric poems has led Prof. Ridgeway, of Cambridge, to connect the salt-miners of Upper Austria with the Achaeans of Greece, the leading people in the *Iliad*. He points out that the helmet, hauberk, and greaves of the Achaean warrior, as well as his round shield with a large central boss, all find their counterparts either at Hallstatt or in the contemporary cemetery of Glasinatz (p. 39). Dr. Reichel, on the other hand, points to existing representations on Mycenaean gems, and holds that the shield generally described in the Homeric poems belongs to the civilization named after the Mycenae of Agamemnon ; indeed the elaborate shield of Achilles cannot well be referred to any

other culture, and least of all to the geometrical school of design so well represented in the cemetery outside the Dipylon gate of Athens. The cumbrous shield shaped like a fiddle-back, of Ajax, Hector, and other Homeric heroes, was a circle of hide, bent in to form a waist near the centre, and slung from the shoulder in action. It seems to have given place, at least in Attica, to a rectangular pattern wielded in the hand; and this, in its turn, was superseded in some parts by the round shield or buckler which, according to Herodotus, was invented by the Carians, and seems to be the pattern referred to in passages added to the Homeric text in the eighth century B. C. The fragment of an Attic vase here

illustrated (fig. 1) shows the three shield-forms above mentioned side by side, and warrants the conclusion that in some areas they were practically contemporary. The Boeotian shield, well known from the coinage, is not unlike the ordinary Homeric form, contracted in the centre; and it should be pointed



*FIG. 1.—Shields from Greek vase, Piraeus. ($\frac{2}{3}$)

out in this connexion that such a pattern appears as an ornamental motive on a bronze belt of the latest Bronze or earliest Hallstatt period in Hungary, exhibited in Case G of the Prehistoric Room (*Bronze Age Guide*, fig. 106). This is by no means the only sign of intercourse between the Mycenaean area and central or even northern Europe (p. 35).

Other coincidences, more or less striking, may here be noted. The long-shafted Hallstatt spear with ferrule corresponds well enough to the Homeric description; and besides a spear, the Achaean warrior also carried javelins and occasionally a sword : examples of both these weapons are plentiful at Hallstatt, and it is significant that the large sword is specially connected in the Iliad with Thrace and Paeonia (the later Pannonia), both in the Balkan peninsula. The daggers mentioned by Herodotus as belonging to the Thracian armament in the days of Xerxes (reigned 485–465 B.C.) were perhaps carried by the Illyrian natives of that district, and correspond more closely to the weapons found at Jezerine in Bosnia (p. 76). The warriors buried at Glasinatz used palstaves and socketed celts as well as double-edged axes of iron, while the Homeric hero had also his half-axe and double-axe. Further, both sexes at Hallstatt, like the Achaeans, fastened

their garments with brooches (*fibulae*): and some of the
Austrian brooches (fig. 28, no. 1) recall that worn by Ulysses,
representing a hound seizing a fawn. In addition to gold
and bronze, the ornaments at Hallstatt included amber and
blue glass (the *cyanus* of Homer), while engraved gems were
unknown : in both respects there is a complete agreement
with the Achaean culture.

On the other hand, many attempts have been made to
assimilate the civilization portrayed in the Homeric poems
with that of Mycenae, and one of the chief difficulties lay in
the rites of burial. Though the body of Patroclus was
cremated, the lords of Mycenae were interred unburnt in
richly furnished graves. At Hallstatt the bodies of the
wealthier class were reduced to ashes and laid in the earth
with arms and ornaments ; and the model chariots from
Glasinatz and Styria agree with those of Homeric times in
having wheels with eight spokes, while those represented
on the tombstones at Mycenae had only four.

Questions of race may be sometimes settled by a comparative
study of physical characteristics as revealed by the skeleton,
but unfortunately in the present case the physical evidence
is quite inadequate. In Austria those who may have re-
sembled the fair-haired Achaeans were burnt before burial,
so that their skulls can no longer be classified. It is stated
that there was a strong resemblance between the unburnt
from Hallstatt and Glasinatz, the majority in both places
being dolichocephalic (p. 40), but this does not enable us
even to distinguish between the long-headed population of
northern Europe (Teutonic) and the Mediterranean race.
About one quarter of the number examined from Glasinatz
were brachycephalic (breadth of skull being more than 80
per cent. of its length). This at least shows that the popu-
lation was mixed, but it is still doubtful whether we may
refer to either group as Keltic.

It is quite possible that there was little or no racial dis-
tinction between Illyrians and Thracians ; and that in the
days before the Keltic invasion from the north, the Balkan
peninsula had a homogeneous population, called Pelasgic
in the south. In the north of Italy this Balkan race shaded
off into the Ligurians, to whom may be ascribed the Terramara
culture of the Po valley (*Bronze Age Guide*, p. 114). In the
days of Herodotus the Umbrians, who were not called Kelts
but spoke almost the same language, occupied north Italy
right up to the Alps ; and they were perhaps the forerunners

of a southward movement on the part of the Kelts, who were known to Herodotus as the occupants of the upper Danube valley in the fifth century B.C.

It may be well to point out that the term Kelt is not used by Prof. Ridgeway in the sense presently to be defined. To him, as to many classical writers, the Kelts are the tall fair-haired and blue-eyed people who from time to time came in contact with the small dark race of the Mediterranean area, any geographical or physical distinction between Kelt and Teuton being disregarded. If, however, Prof. Ridgeway's Achaean theory outlined above is to stand, we may perhaps look upon the host of Achilles as Teutonic immigrants into Thessaly from the north-west. In any case the Achaeans seem to have advanced from the upper Danube, through Albania and Epirus, before the Pindus range was crossed into Thessaly, for it is on the western side that access from the north was rendered easy by the disposition of hills and valleys, numerous rivers flowing through long gorges and rich pasture-land into the Adriatic. It is, moreover, worthy of remark that in Epirus Greek and barbarian met for purposes of commerce. Herodotus relates how sacred objects bound up in wheaten straw were brought from the Hyperboreans (of the Baltic) to the Scythians (of the lower Danube and south Russia), the latter forwarding them westward to the Adriatic. The route was then southward till the Greeks received them at Dodona in Epirus, transporting them to the Maliac Gulf and across to Euboea, thence by various stages to the sacred island of Delos.

It was about 1400 B.C. that the Achaeans made their way into Greece, a date that is somewhat earlier than the most characteristic finds at Hallstatt. This descent from the north may well have been a death-blow to the Mycenaean civilization in the invaded area, though there was a subsequent invasion that is more generally credited with the ruin of indigenous arts and crafts. This was the Dorian invasion, which, according to tradition, extended to the Peloponnese eighty years after the Trojan war, the Dorian element being well represented by the Spartans of classical times. To what extent and at what period the civilization of Mycenae was subordinated to less refined influences in various parts of the Greek world, are questions that cannot be treated here, but a few words are called for on the subject of the Geometrical style which was adopted not only in Greece but also among the barbarians of central Europe. This school of art, which

knew little or nothing of the naturalistic figure designs of
Crete and Mycenae, was characterized by an almost exclusive
use of geometrical designs, interspersed with friezes of human
and animal figures but poorly represented (*First Vase Room*).
The best known locality for vases and ornaments of this style
is the Dipylon cemetery north-west of Athens ; and this stiff
and mechanical treatment of ornamental motives is on this
account sometimes known as the Dipylon style. It may be
said to belong to the eleventh and tenth centuries B.C., but in
some parts survived much longer. Recent excavations have
at least rendered it probable that the style is much earlier
than is generally held, and was in fact contemporary, though
unconnected, with the early products of Mycenaean art. The
geometric style of ornamentation on pottery and bronze-work
may indeed be considered as common to a large part of
Europe in the Bronze age ; and it would probably be more
correct to consider the Mycenaean culture as a novelty from
the south, and the Dipylon school as the lineal descendants
of the Bronze age population of Europe. In Italy, as in Greece,
these two distinct currents can be discerned in the remains of
the period under review ; and the geometrical style is repre-
sented west of the Adriatic by numerous relics that have come
down to us from the Villanova period. This name is taken
from a celebrated cemetery near Bologna belonging to the
earliest Iron age in Italy (about 1000 B. C.), where the cinerary
urns especially exhibited such decorative features as the
meander or Greek fret, the swastika or fylfot, the step-pattern,
hatched triangles and disconnected rectangles, arranged for
the most part in horizontal bands. All these motives occur
also at Hallstatt as well as in Greece, and there was probably
no great difference in date between similar products in these
three principal centres. The question of racial connexion as
a factor in this common civilization cannot here be discussed ;
but a brief historical sketch is necessary to define the position
here taken with regard to the Keltic question.

To Herodotus, writing about 450–440 B. C. probably in
south Italy, the Kelts were known as a people living near the
sources of the Danube, east of the pillars of Hercules, and
next to the Kynetes, who were the most westerly people
of Europe. An earlier writer, Hecataeus of Miletus (about
500 B. C.), mentioned Marseilles as a city of Liguria which
adjoined the land of the Kelts: from which it appears that
the Kelts had not reached the Mediterranean at the close of
the sixth century. Herodotus evidently misplaces the head-

waters of the Danube, but there is another tradition, preserved by the poet Apollonius of Rhodes (240 B.C.), that as early as the sixth century the Kelts were situated in the Rhone valley and round the lakes of Switzerland and north Italy. These Kelts were known as *Gauls*, a name by no means confined to the inhabitants of what is now France; and their presence on the northern slopes of the Julian Alps (the later Noricum) intimates the route by which the Gauls of Brennus marched southward in 395 B.C., by way of Aquileia and Venice. These Gauls were not only perfect strangers to the Etruscans and Romans, but were equipped with strange weapons; and were called Transalpine to distinguish them from earlier settlers in Lombardy who were known as Cisalpine. From the description given by Polybius (205–123 B.C.), the latter were a settled and agricultural people who flourished on the rich soil of the Po valley, and have been by some identified with the Umbrians; whereas the Transalpine Gauls, according to the same historian, lived in scattered villages without walls, and had none of the comforts of life. Their property took the form of cattle and gold, which were easily movable; and they set much store by an almost feudal military system, the more powerful among them maintaining each a band of armed retainers pledged to their service.

Polybius states that the names of these two Keltic peoples were purely geographical, and not based on a difference of race; but he seems to restrict the term Galates to those from beyond the Alps. Diodorus, however, who wrote about 50 B.C., has an explicit passage in this connexion: ' It may be well to settle a matter of which many are ignorant. The Kelts are those who live in the interior of the country (France) above Marseilles, those near the Alps, and those on the north of the Pyrenees. The people settled above Keltica, who inhabit all the lands extending from the Ocean (Atlantic) and the Hercynian Forest (Taunus to Carpathians) to Scythia, are called Galates. Still the Romans include all these peoples under a common name, and call them Galates without distinction.'

After the sack of Rome in 390 B.C. by Gaulish hordes, of which the leaders were no doubt Galates, mercenary warfare seems to have engaged most of their attention. Scylax, a Greek geographer of Caryanda, preserves a tradition that about 350 B.C. a remnant of the Gaulish conquerors of Rome were settled on the Adriatic coast of Italy between Rimini and

Venice, while further south Sinigaglia (Sena Gallica) points to Gaulish occupation at some period. By the time of Hannibal (247–183 B. C.) the Kelts had spread in most directions from their old home in the neighbourhood of Marseilles; and the Iberians of Spain, as well as the Ligurians between the Pyrenees and Cevennes, had come in contact with this new power. Hence arose the Keltiberians and Kelto-Ligurians of history, probably consisting of the conquered population under Keltic masters. Further north, in what is now France, the inhabitants were vaguely described as barbarian (in the sense of 'strangers'), and virtually nothing is known of them till the time of Caesar. Polybius had heard of no Kelts west of the Rhine, but the traveller Pytheas, of Marseilles, who sailed round the west of Europe about 300 B. C., found a Keltic population on the western coast of Gaul. Indeed, if Cassiteros (Greek for tin) can be regarded as a Keltic word, it is probable that the tin-islands (apparently off the north coast of Spain) were in the hands of a Keltic-speaking people as early as the time of Homer.

The historical sketch given above may serve to explain the distribution of the earliest bronze and other antiquities which illustrate the relations between the classical peoples of the Mediterranean and the 'barbarians' settled beyond their borders in the fifth century before the Christian era. Apart from the cemeteries of north Italy, which were evidently used by the Kelts, the area most affected by the culture of La Tène (the Keltic Iron age) comprises a broad strip from the north of France through the Champagne district, the Meuse, Moselle, and Saar valleys, Lorraine, Alsace, Würtemberg, Franconia, Bavaria, Bohemia, and Upper Austria. The limits are approximately Great Britain and the Carpathians, the Alps and the central mountain-chain of Germany. Of this area the eastern half, comprising eastern Bavaria, the upper Danube valley, the Styrian Alps, and Bohemia, contains many remains clearly connected with the Venetian culture of the Adriatic. Whether the inhabitants of this area were connected through Hungary with the Scythians of south Russia is not at present clear, but it is evident that the headquarters of the La Tène style must be looked for further west ; and the finest products of the period are found to be concentrated in southern Germany and north-east France, though the actual centre of radiation for such objects may have been on the upper Rhone.

We have next to consider the origin and affinities of the Belgae, who gave their name to Belgium and were in pos-

session of north-east Gaul in the days of Julius Caesar. It may first be mentioned that Belgius (or Bolgius) was the name of one of the Galatian leaders in the expedition against Macedon and Illyria in 280 B. C. It is true that the Gauls in this instance came directly from Pannonia (East Austria and Hungary west of the Danube), but the Galatian stock was widely dispersed in central Europe. South of the Alps, for instance, were the Boii and Insubres ; north of the mountains were the Gaesates, and on the west the Allobroges, while the Tectosages not only occupied the Toulouse district (between the Pyrenees and Narbo) but were also among the founders of Galatia in Asia Minor (third century B. C.).

The true Kelt was of medium stature, with a short head and a round, prominent forehead, contracting towards the temples : the nose almost straight, the chin rounded, and the eyes and hair dark brown or black. The Belgian, on the other hand, was much taller, with a long skull, a broad, high forehead, prominent chin, and aquiline nose, with eyes and hair of a light colour. There was, indeed, little to distinguish him from his neighbour the German, but in course of time there was a considerable fusion of Belgic and Keltic blood in Gaul ; and it is significant that while Caesar, in the middle of the first century B.C., makes the Seine the boundary between these races, Strabo about fifty years later substitutes the Loire.

The division of the Keltic-speaking inhabitants of the British Isles into P Kelts and Q Kelts is based mainly on philology, and is briefly dealt with in the *Bronze Age Guide* (p. 22). Something further must now be said as to a similar division in certain continental areas. It has been already stated that the Bronze age inhabitants of this country—those whose remains are found in the Round barrows—were akin to the true Kelts who in Caesar's time lived in central and north-west Gaul, and are now represented in the Auvergne, Dauphiny, Savoy, the Grisons, and Maritime Alps. These were the Goidels or Q Kelts, from whom the Gaels of the Scottish Highlands, of the Isle of Man, and of Ireland are descended. According to Prof. Rhys, the Q Kelts were also represented in Spain and Greece, while the Siculo-Latin dialects (which belonged to the Q group) took root in Italy before the southward advance of the P group comprising the Oscans and Umbrians. So far as language is concerned, there is evidence that the seaboard of Europe from Holland to Spain was once occupied by the Q Kelts, who were gradually displaced by an advance of the P Kelts from some central

area near the Alps and compelled to go further afield, those in Britain spreading in the form of a fan to the extreme north and west. If Kent, the nearest point to the continent, be regarded as the centre, the areas subsequently held by the P Kelts or Brythons will be seen to lie on an inner circle, including Wales, Cornwall, and Brittany. The conquering Brythons spoke a language that belonged, like that of their predecessors, to the Aryan or Indo-European family, but had certain peculiarities that point to racial divergence. An attempt is made below (p. 81) to distinguish on archaeological grounds between the P Kelts of Britain and the Belgic invaders whom Caesar found in possession of the south ; but it may be mentioned here that, while the Aryan Goidels seem to have mingled freely with the aboriginal non-Aryan Picts, the Brythons had a dialect quite distinct from Goidelic, and their true nationality, like that of the Belgae, has yet to be determined.

Having pointed out some of the difficulties involved in the Keltic question, we proceed to inquire what can be ascertained from the artistic products that may with some confidence be attributed to that race. In view of later developments in this country, it is necessary to say something of the methods employed during and after the Hallstatt period in the decoration of buckets and other articles of bronze. The subject is by no means clear and can only be treated in the merest outline here, the chronological and artistic relations of several notable examples being still under discussion. The employment of figures of animals and human beings, as opposed to the linear ornament of the Bronze period, precedes the opening of the Iron age, at least in southern Europe ; the designs being carried out in dotted lines, and round bosses being pressed up from the back of the bronze plate. Shields, for example, of that period show stamped figures of water-fowl (sometimes only the fore-part) intermingled with bosses and concentric rings, while in Italy a further stage had been reached, as exemplified on the engraved brooches, knives, spearheads, swords, and discs of the Villanova period. During the bronze-sword period at Hallstatt there seems to have been no figure decoration, but the succeeding (iron-sword) period on that site is richly represented by articles decorated in the *situla* style. Such is the name given to a method of ornamenting vessels of the bucket-type (Latin *situla*) by means of horizontal bands or friezes containing rows of animals and men, a method that is seen in its fullest develop-

ment in the many examples found at or near Bologna. During the main Hallstatt period (ninth and eighth centuries) the *situla*-style, both north and south of the Alps, shows traces of the early geometrical style of Europe, not only in the survival of linear patterns but also in technique. The principal figures have contour lines, and the dots and bosses of the Bronze age are still to the fore, while smaller figures of water-fowl, horses, &c., as well as concentric rings, are stamped in the bronze (fig. 2). The figures were embossed (*repoussé*) by hammering from the back, and details were added from the same side by means of punches, which produced bosses of various sizes ; while on the front the figures were outlined by means of a chisel, each blow with the hammer producing a short line, quite different from the continuous line of a graving-tool. A good Italian example of this stage is the series from the warrior's tomb at Corneto.
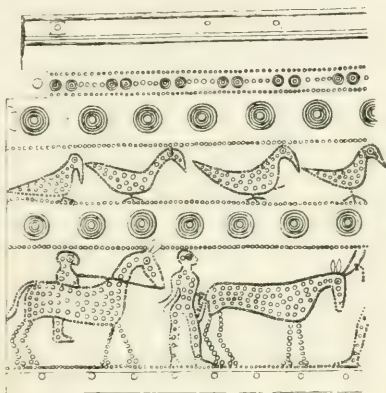


*Fig. 2.—Bronze from bucket, Sesto Calende, Lake Maggiore. ($\frac{1}{2}$)

A decided change of style is observable on many antiquities of the later Hallstatt period, and the adoption of motives from the East has been considered the distinguishing feature of the seventh and sixth centuries, though there are a few later examples. The lid (fig. 3) of one of the buckets (fig. 4) found at Hallstatt itself furnishes a good illustration of animal ornament under orientalizing influence. The procession includes a stag cropping a plant. a Sphinx, a goat holding a branch in its mouth, and a winged lion holding in its jaws, by the foot, the hind-quarters of some animal. There can be no doubt as to oriental influence in this case, and all the elements are found in examples from Este ; but that known as ' Benvenuti A ' perhaps affords the closest parallel. Other buckets from Hallstatt are not in the same style, one having a purely geometrical design of parallel lines, concentric rings, meanders and semicircles ; the other illustrated by von Sacken being also in the geometrical style, with rosettes and beaded borders, but having an outer band stamped with figures of horses, as

seen on examples from Klein-Glein
(Styria) and St. Lucia (Goritz).



*Fig. 3.—Lid of bucket, Hallstatt, Upper
Austria.  (about ¼)
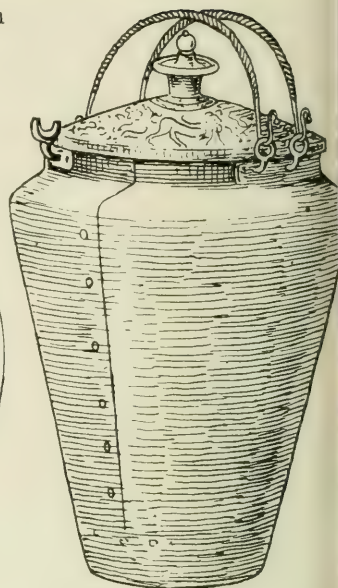


*Fig. 4.—Bucket with lid,
Hallstatt.  (⅙)

The representation of confronted animals, almost heraldic in
style, is another indication of
contact at some time with the
East.   Common in Assyrian
art, where it is usually as-
sociated with the sacred tree,
this motive occurs in widely
separated areas, as at Dodona,
on a plaque of the fourth cen-
tury B.C. (fig. 5) ; in south
Russia, eighty miles from the
sea of Azof, on a gold band
(fig. 6) of the early third cen-
tury ; on buckets found in
south Britain (figs. 25 and
93) : and on a remarkable
buckle found in Yorkshire
(fig. 112).   Such are a few in-
stances of artistic borrowing
in the ancient world.



*Fig. 5.—Embossed bronze, Dodona,
Epirus.  (⅔)

It is natural to account for the spread of oriental art in the Mediterranean by the commercial activity of the Phoenicians, and it is significant that the proto-Corinthian vases (*First Vase Room*) which prove a close connexion with the East, were produced at one of the principal commercial ports of the period. We know that Hiram of Tyre supplied material for Solomon's temple in the middle of the tenth century B. C.; but the Phoenician power declined after the conquest by
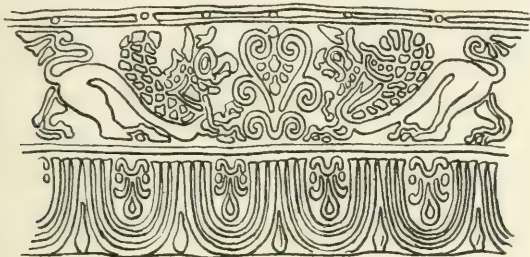


*Fig. 6.—Embossed gold band, Chertomlyk, S. Russia. (⅔)

Nebuchadnezzar early in the sixth, and commercial supremacy gradually passed to Carthage, the daughter city occupying a more central position in the western world. Egypt also exercised a considerable influence on the art of the period, and it must always be remembered that the Phoenicians were only intermediaries and created no art of their own.

Without attempting to trace the descent of the Greek
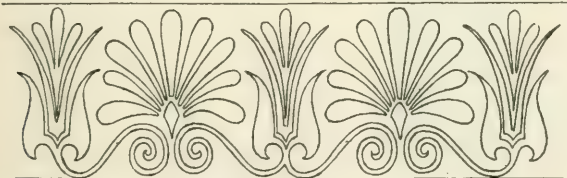


*Fig. 7.—Frieze from the old Parthenon, Athens.

palmette (Gk. *anthemion*) from the Egyptian lotus-plant, we must go back to the fifth century B. C. for several motives employed in the La Tène period of Europe. The inquiry is one of interest, as it links the art of pre-Roman Britain to that of the Periclean era; and, though an anti-climax was inevitable, there is a consummate mastery of design in the Thames shield (pl. I), for example, that makes a comparison with Greek ornamentation at its best by no means ridiculous. The sub-

ject has been dealt with in some detail by Dr. Arthur Evans, but has never been adequately illustrated for the benefit of a larger public.

A convenient starting-point is found in the decoration of the old Parthenon on the Acropolis at Athens, which was destroyed by the Persians under Xerxes in 480 B.C. Some remarkable fragments have been recovered from the ruins, and one painted frieze (fig. 7) shows the drooping palmette alternating with the lotus-bud
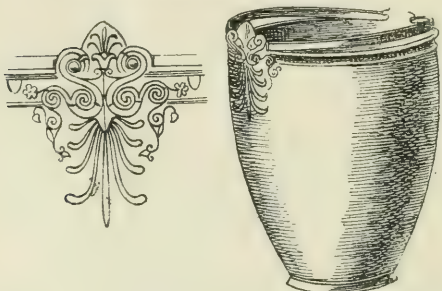


*Fig. 8.—Bucket with detail, Waldalgesheim, Coblenz. (bucket ⅖)

(in developed form), while the stiff palmette (as fig. 45) was also freely employed on the building, in association with the other form which has been sometimes assigned to a later date. That the bar-barian artist had the opportunity, but not the power, of copying the droop-ing palmette is sug-gested by its occur-rence on a bucket (fig. 8) of Greek manufacture which was found in the same grave as the flagon (fig. 9) at Waldalgesheim, while the gold torc (p. 56), of which details are given, was found at the same place and time, on a slightly higher level. There
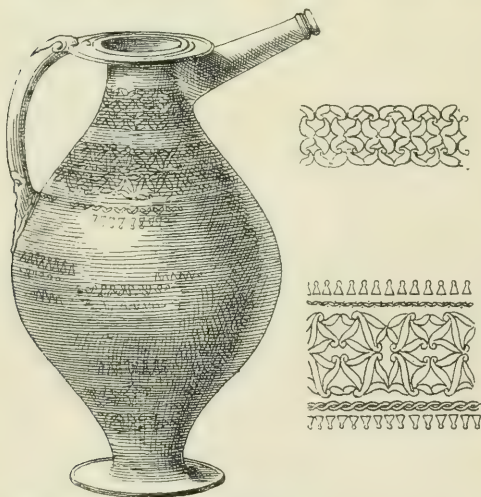


*Fig. 9.—Flagon with details, Waldalgesheim. (flagon ⅙)

is at first sight little connexion between the designs on these three objects, but fig. 10 gives the intermediate stage of the development, or rather degradation, of the palmette. At the

top may be discerned a single leaf of the fan-shaped palmette, springing from the wedge that fills the angle of the volutes. The volutes take the usual form of S-shaped scrolls, and have
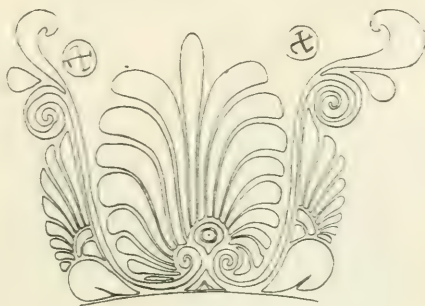
Fig. 11.—Palmette from Greek vase, Nola (F 129). (¼)

the swollen terminals that often occur on Greek vases (fig. 11) during the period of decline (after 330 B.C.). The naturalistic sprays and rosettes of the Greek bucket are also reproduced in an eccentric manner on the torc, while at the base of the

triangle may be seen the three-membered motive that seems to have specially attracted the Keltic artist (figs. 126, 84). The two friezes on the torc show a further stage of debasement : the lower one, how-ever, still retains a clear trace of the enclosed palmette familiar in classical art (fig. 12), while the comma-shaped fillings of the angles are clearly a survival of the tear-shaped pendants from the conven-tionalized lotus-flower of Egyptian ornament. The alternate palmettes



Fig. 12 —Enclosed palmette from vase, Cyprus (C 371). (½)

of the frieze are inverted ; but this is not unprecedented, and it is clearly from this design that the upper frieze is derived. Thus on the same object may be distinguished three stages in the logical development of Keltic ornament, and this should

suggest caution in dating antiquities of this kind merely by analysis of the ornament. The caution is all the more necessary in this case as the same motive occurs on British work (as fig. 126), of a much later period.

From the classical point of view, a still lower level is reached by the flagon (fig. 9) included in the Waldalgesheim find. Apart from the form of the vessel, with its tubular spout replacing the open runnel of the classical pattern (fig. 45), the engraved bands of decoration bear but the slightest relation to the palmette, and it is clear that even in the fourth century component parts of certain classical motives had been arbitrarily selected and rearranged in unmeaning combinations. The present example
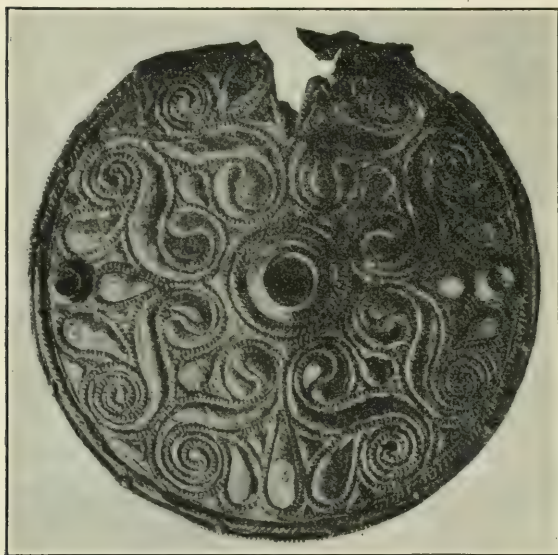


*Fig. 13.—Gold disc and unit of design, Auvers, Seine-et-Oise. ($\frac{2}{3}$)

shows the scroll and its peculiar thickening, that were destined to play an important part in Late-Keltic art.

Another favourite motive may here be analysed, and examples adduced to show the stages of its evolution. The circle bisected by two semi-circles of half its diameter ⊖ is a well known Chinese symbol (*Yang-yin*), but in the Early Iron age it seems to be a derivative of the Greek palmette. Perhaps the strongest evidence for this is afforded by the spear-head (fig. 17) from Thielle, now in Berne Museum. At the base of the central triangle may be seen two heart-shaped forms that bear a strong resemblance to the enclosed palmette

of the Greek world (fig. 12); and if one side of the enclosed design be viewed in conjunction with the central lobe, a possible genesis of the curl flanking the triangle on this blade becomes apparent. It should, however, be pointed out that on the embossed gold disc (fig. 13) of Auvers (Seine-et-Oise) the same motive occurs, but may have been compounded in this instance of a side lobe of the palmette and the space of similar shape between itself and the S-curve that bounds
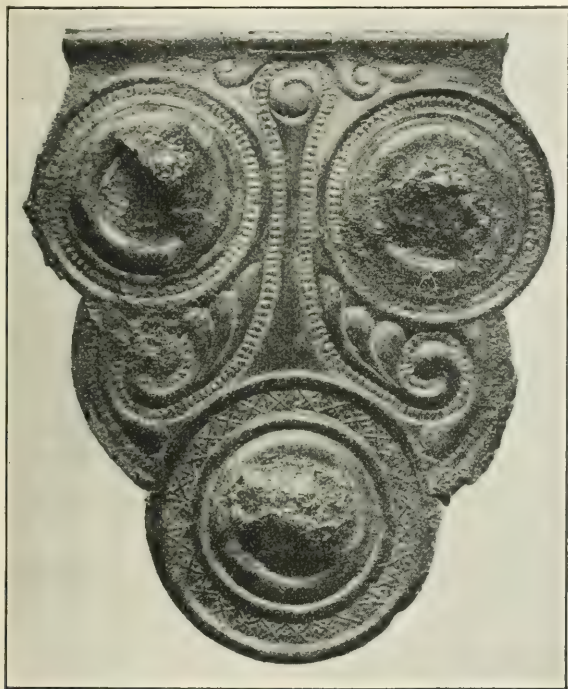


Fig. 14.—Cheek-piece of helmet, with iron bosses. (²⁄₃)

the triple-lobed palmette. Something of this kind is seen on a vase from Cameiros (fig. 16) belonging to the best period of Greek art, where a palmette of seven lobes is flanked by two scrolls, resembling a lyre. It is not contended that one design was derived from the other, only that at a time when classical motives were becoming common property, the same treatment of the palmette may have occurred alike to the vase-painter in Rhodes and the goldsmith in Gaul.

Another Keltic transformation of the classical palmette may here be noticed, and there will be little difficulty in recognizing the prototype. Unfortunately nothing is known about the discovery of the cheek-piece (fig. 14) of a helmet (Case 77), but the style of its decoration suggests the fifth century B.C., being contemporary with the Schwarzenbach find (p. 23) which included a gold open-work ornament of a very similar design (fig. 15). The cheek-piece is of a form not unusual at the period, and was probably made between the Balkans and the upper Rhine. The arrangement of the palmette-lobes is here governed to some extent by the shape of the bronze, which was no doubt originally of a golden colour, while the iron studs would be polished like silver.

Enough has been said to show that the ornament gives some clue to the date of Iron-age antiquities, but a more solid foundation for chronology is afforded by the successive changes undergone by the sword and the brooch in Keltic lands. Though typology may here again be sometimes at fault, their contemporary varia-
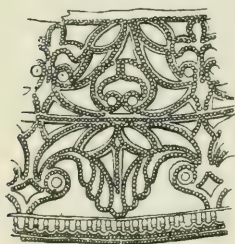


*Fig. 15.—Detail of open-work, Schwarzen-bach, Birkenfeld. (⅔)



Fig. 16.—Palmette from vase, Cameiros, Rhodes (E 99). (⅔)
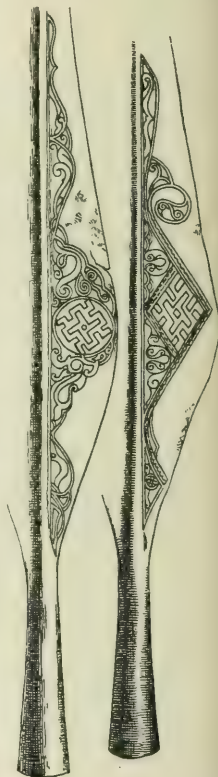


*Fig. 17.—Details of spear - head, Thielle, Switzerland. (¼)

tions are fairly established by numerous discoveries of these two important articles in association. The pioneer in this inquiry was the late Dr. Otto Tischler, of Königsberg; and a summary of his results is given below (p. 42), with certain modifications and additions.

In a comprehensive survey of the La Tène culture recently

published by Dr. Paul Reinecke, the principal characteristics of the various stages are enumerated; and the semi-classical era of Central Europe, which is represented in the Museum collection by the Somme Bionne chariot-burial (Cases 69, 70), is shown to have left us many important works of art. Greek bronzes, comprising a tripod, beaked flagons (as fig. 45), flat round bowls with or without handles, buckets and two-handled jars (*amphorae*) are occasionally found in graves north of the Alps, associated with painted pottery made before 460 B.C. These occur for the most part in richly furnished graves on either bank of the upper Rhine, though similar finds have been made in the valleys of its tributaries, the Moselle (with the Saar) and the Meuse. Dürkheim (thirteen miles west of Mannheim), Schwarzenbach (Birkenfeld in Oldenburg), and Weisskirchen (near Merzig, on Saar, about twenty miles south of Trèves) are typical sites for Greek work, perhaps prior to 500 B.C.; while the painted bowl from Klein-Aspergle (Ludwigsburg, eight miles north of Stuttgart) which must be contemporary with the Somme Bionne example (Case 70) has been dated by Prof. Furtwängler between 470 and 480 B.C. It is of course possible that these fragile vessels were not buried for some years after their manufacture or importation, but it is barely conceivable that several of the kind should have been in actual use long before they were placed in the tomb. There need be little hesitation, therefore, in dating the burials by the vases; and the typical grave at this time was a large mound of varying height containing the unburnt body, though surface-graves had here and there already made their appearance.

This chronology is confirmed by the style in which the beaked flagons are ornamented. Below the handle is generally to be seen a stiff palmette (fig. 45), which on the whole preceded in Greek art the drooping palmette (fig. 11). The latter became popular in the fifth century B.C., and is well seen on the Parthenon (finished in 438 B.C.). Barbarian imitations, or adaptations of articles exported from Greece or Italy about that time, are obviously contemporary with the models, as they display peculiarities of style that soon disappeared from the artistic world of the Mediterranean. The distribution of such semi-classical products is thought by some to point to the Keltic country inland from Marseilles as the centre of manufacture. They do not appear to have spread from the Greek colonies of the coast, and the Ligurians who surrounded those colonies had probably not yet been driven out by the southern advance of the Kelts (p. 10).

Native industry during this early phase (La Tène *A*) is best represented by short swords, contrasting with the enormous weapons of the Hallstatt period ; and by tall, conical helmets of bronze, the exaggerated points of which distinguish them from contemporary Italian specimens, and point to contact with Assyria (p. 68). Casts of the two best known helmets are exhibited in Case 76.

As the succeeding periods of La Tène civilization will be conveniently dealt with in describing the Cases containing specimens typical of each, it will only be necessary to say a few words, by way of introduction, concerning Keltic art



*Fɪɢ. 18.—Bronze bucket with frieze, Este, Padua.  ($\frac{1}{10}$)

as it flourished in Britain. It is quite possible that certain motives, originally derived from the art of Mycenae and well represented in the Bronze age of our islands, survived into the Iron age and influenced Late-Keltic design. The S and C spiral-curves, for instance, may here and there be recognized, and certain pottery found in Bosnia and Transylvania presents eccentric curves that seem to fore-shadow the developments of much later centuries on the Continent ; but more direct influences can alone be treated here.

The urn-field at Aylesford (p. 115) has furnished several

complete pottery vessels of types well represented on other early British sites, as at Hitchin (fig. 22) and Shoebury (fig. 23); so that we may now look on the series as of local manufacture, inspired no doubt by Gaulish models, but firmly established in the island. In spite of the variety of forms (fig. 101) there are certain unmistakable features that show their original derivation from prototypes of metal; nor are bronze vessels of the requisite outline far to seek. In dealing with Aylesford, Dr. A. Evans has traced the descent of the cordoned vases like fig. 101, no. 13, from the *ciste a cordoni* of North Italy, and an illustration is given to show how close is the resemblance. The Este specimen (fig. 18) has the angular shoulder (*cariné*) which can be readily produced in bronze, but is difficult to render in a less rigid medium such as clay. There are, however, in the Morel



*Fig. 19.—Cinerary urn, St. Audebert, Dépt. Aisne. ($\frac{1}{3}$)

collection (Cases 65-74) several examples of thin black pottery, in which this feature is specially noticeable (pl. IV, nos. 7, 12), while others of ruder construction in buff or red ware exhibit a decline in handicraft (pl. IV, nos. 13, 9).
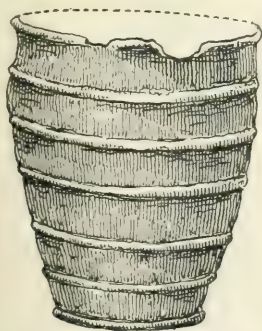


*Fig. 20.—Cordoned urn, Moulineaux, Rouen. ($\frac{1}{6}$)
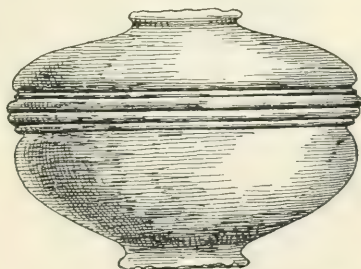


*Fig. 21.—Urn with cover, Hallais, Seine-inférieure. ($\frac{1}{4}$)

A more natural form for pottery is that of a cordoned vessel from Certosa. The angularity of bronze has given place to a graceful curve, corresponding to that of several Aylesford specimens, while the old tradition is kept alive by the rows

of bronze studs now purely decorative.  The frieze on the
Este specimen is noticed elsewhere (p. 14), and its appear-



*Fig. 22.—Late-Keltic urns, Hitchin, Herts.  ($\frac{1}{10}$)

ance on vessels of this type shows that the form had taken
root in North Italy, even if the parent stock is not to be



*Fig. 23.—Late-Keltic urns, Shoebury, Essex.

sought in that region.  From the plains of the Italian
provinces of Emilia and Venetia the pedestalled urn can be
traced across Europe and the Channel to the south of

England; and there are certain indications that the type was preserved through several centuries. There can be little doubt that the trade-route along which it passed ran for some distance parallel to the Rhine, and it is in the



Fig. 24.—Etruscan bucket, Offida, Picenum (Cat. no. 650). (¼)

Dépt. Marne (La Champagne) that most examples occur (pl. IV, no. 13). These can be ascribed without much hesitation to the fourth century B.C., but later relics of the Gaulish period are scarce in that area (pp. 71, 73), and subsequent

developments must be sought elsewhere. That from Saint
Audebert (fig. 19) which was used as a cinerary urn, and



*Fig. 25.—Late-Keltic bucket, Marlborough, Wilts. (about ⅕)

others from the lower Seine district (figs. 20, 21) show that
this class of pottery survived the disturbances which revolu-

tionized the funeral rites of Gaul (and incidentally of Britain), and connect the urn-fields of south-east Britain with the richer tombs of the Italian plains.

Nor is the cordoned vase the only link that binds the civilization of early Britain to that of classical lands. Aylesford again demands attention, for in the principal burial of that cemetery (fig. 92) there were in addition bronze vessels of classical manufacture, and a more barbaric production in the form of a bucket, the bronze ornamental mounts of which betray classical influence (fig. 93). The effect of barbaric imitation during two or three centuries may be appreciated by comparing an Etruscan *cista* of the fourth century (fig. 24) with the Aylesford bucket (fig. 93) of the first century B. C. The first thing to be noticed is the absence from the latter of the heavy solid castings that form the feet and handle-attachments of the classical specimen. Such work was beyond the range of the British artificer, who was never successful with the human or animal form (fig. 120); but there is an evident desire to reproduce the salient features of the prototype. The solid uppermost band of the Etruscan specimen is represented by a thin embossed strip at Aylesford, while the classical motives are woefully caricatured. Minor analogies are noticed later (p. 116), but the degradation of the ornament may fitly be dwelt on here, as showing the limitations and at the same time the originality of the native craftsman.

Another remarkable bucket, of which an illustration is given (fig. 25), was found containing burnt human bones near Marlborough, Wilts, about 1807, and is now preserved in Devizes Museum. It evidently belongs to the same class and period as the Aylesford specimen, but from certain details of the ornament Dr. Arthur Evans concludes that it was made in Armorica and imported from the opposite coast, like many coins of Armoric or Channel Islands type (p. 151) found in Devon and Hants. The sea-horses that occur on the uppermost zone (back) are a conspicuous feature on coins of the Cenomani (Maine) and Redones (Rennes), both of which tribes were located near the Veneti in Gaul, the great sea-faring people of Caesar's time who commanded the mouth of the Loire.

In the latter half of the first century B. C. Keltic art in Britain seems to have lost touch with classical models, and to have entered on a stage marked by exuberant fancy and astonishing excellence. It is indeed possible to trace a connexion between classical Greek art and the design of the masterpiece illustrated as a frontispiece to this Guide ; but

the artistic feeling and mastery of line that characterize work
of the best period in Britain could only be met with in these
islands.  In the description of the objects themselves enough
will be found to establish the unique character of native art
before the legions of Claudius began the conquest of our
larger island.  It must, however, be stated at once that
Keltic methods and traditions continued in Scotland and
Ireland while the Roman province of Britain was being per-
meated with the civilization of Italy.  Early-British art as
practised in Scotland and Ireland should, in fact, be regarded
as the outcome of some centuries of development in what is
now south-eastern England: a simple proof of this is the
virtual restriction of pre-Roman coinage to an area south of
a line from the Bristol Channel to the Wash.  The south-
eastern area, including the Thames valley, Kent, and the
eastern counties, was the cradle of Late-Keltic or Early-
British art, the continental parentage of which is now fairly
established.  Even if other districts eventually prove more
prolific of such remains, there can be little doubt that this
extraordinarily attractive style of ornamentation was focussed
in the home-counties, and was dissipated by the Roman arms.
There are some indications of an artistic revival in the same
area after the Roman officials of the province withdrew early
in the fifth century, but remains of that period in England
must be considered in connexion with Anglo-Saxon antiqui-
ties.  There is as yet no satisfactory chronology for similar
antiquities from other parts of the British Isles, and it is quite
likely that some objects exhibited in Case 51 belong to the fifth
or sixth century of our era; but as the number involved is
very limited, all are considered as belonging to the Early Iron
age of Britain.

# DESCRIPTION OF CASES

## Continental Section.

REFERENCE to the series of early brooches in the Department
of Greek and Roman Antiquities is necessary to illustrate similar
specimens found outside the classical area ; but certain stages in
the evolution of the chief types are here shown. Prof. Montelius
has elaborated a logical scheme for classifying many hundreds
of brooches now preserved in museums but discovered before the
days of scientific excavation. Seldom are exact particulars of the
deposit, or descriptions of associated objects, placed on record, and
in many cases even the locality of the discovery is unknown. In
spite of these drawbacks, it is possible to determine the relative
date of the majority, and an absolute chronology may also be
attained in the future. The scheme here presented in outline
(fig. 26) will at least assist the memory, though it is by no means
suggested that corresponding stages are necessarily contemporary,
or that any stage was exclusively represented at any particular
period. The evolution of some patterns may have been more
rapid than others, and brooches belonging to two or three suc-
cessive stages may have been worn by the same person. It
should be noticed that, except in the compound brooches where
the pin and bow are not made in one piece (nos. III *d* and *e* of
fig. 26), the elasticity is provided by a single or double loop on
one side only of the head : this characteristic, among others,
distinguishes them from the La Tène series to be considered
later (p. 42). The series I and II began before III and IV, but
various forms of II (*d* and *e*) proved the most lasting of all, and
occur frequently in our own country.

### No. I

This series, arranged vertically, starts with a primitive type (*a*)
closely resembling a modern safety-pin, but yet showing an
advance on the simplest form named after the Peschiera pile-
dwellings on Lake Garda. The bow is plain and becomes stouter
and more arched to allow more room for the fabric, while trans-
verse mouldings are added (*b*), but the main features persist—
a single loop at the head, and a flat spiral coil beyond the catch.
The spiral coil is next flattened out and simplified (*c*), in a manner
recalling the Scandinavian development, shown in the *Prehistoric
Room*, Case H ; and the catch-plate eventually loses all trace of the
spiral coil, and offers a surface for engraved ornament (*d*). The
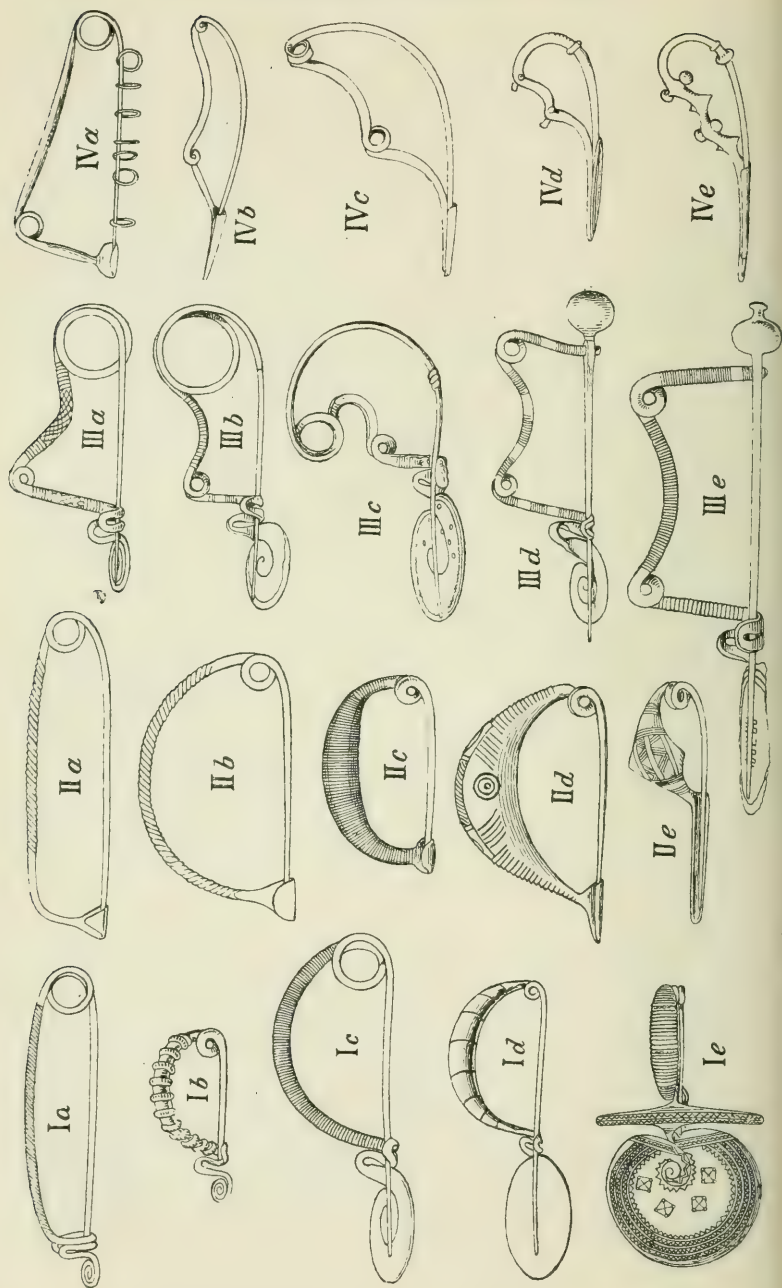
*Fig. 26.—Development of Italian brooches, before 400 B.C.

last member of this series shows the disc engraved with charac-
teristic geometrical designs, and a last trace of the spiral, but
is a by-product in which the catch has been abnormally developed
on either side (e). In Greece brooches of any kind are uncommon
at this period, but many have a large catch-plate engraved with
geometrical patterns or animal forms, but vertical (in the same
plane as the bow) and generally rectangular.

## No. II

The distinguishing characteristics of this group are a plain
bow, a single loop at the head, as in no. I, and a simple broadened
catch without a continuing spiral coil (a). The bow presently
becomes semicircular, and a rope-pattern on it is very usual (b);
but a thickening towards the centre supervenes, and the orna-
mentation chiefly consists of transverse grooves (c). In the next
stage (d) the catch-plate lengthens, and the bow assumes the
'leech' form with geometrical engraving; while the 'boat' shape
emerges on the further lengthening of the catch and hollowing
of the bow, the sides of which sometimes run into points (e),
these being eventually surmounted by knobs (fig. 76).

## No. III

The simplest form (a) is here marked by a loop near the centre
of the bow but otherwise resembles no. I a (plain bow). The
spiral coil beyond the catch developes into a flat disc as before,
but the pin shows a tendency to curve (b), and the loop at the
head at length rises vertically over the secondary loop and the
catch (c). Two by-forms are here included (d and e) which
might be called swivel-brooches, and are made in two pieces, the
two loops of the bow being retained, and a separate pin revolving
on the upper end of the bow.

## No. IV

This series starts with a specimen resembling no. III a, but
with a simple catch like that in series II. The pin is at first
almost straight (a), but a curve is soon developed as in the last
series, and the next example shows a simultaneous lengthening
of the catch (b). The curve of the pin and length of the catch
increase together (c), and the two small loops in the bow are
represented by horn-like projections (d). The 'horned' type (e)
is the last here illustrated, some specimens having as many as
four pairs of horns or knobbed projections on the bow.

As might be expected from their early date, Italian brooches
of the types described above are rare in Britain, but a certain
number have been found (p. 98), generally of the 'leech' and
'boat' forms (II, d and e). A good example of I e, with the bow

composed of thin discs strung on a rod, but without the exaggerated cross-bar, has been found in Hampshire with a degenerate copy of the 'horned' type (IV e). At Hallstatt, however, most of the forms are found in profusion, and it will be now advisable to notice that cemetery in detail.

The Hallstatt cemetery lies in a defile of the Noric Alps (Austrian Tyrol), not far from the village, which is situated on a lake of the same name. From time immemorial this has been the scene of extensive salt-mining, and though not on one of the ancient highways of commerce, was within forty miles of Noreia which gave its name to Noricum and is generally considered one of the earliest centres of iron-working in Europe. It is naturally connected with the Danube basin, and represents a culture common to most parts of South Germany, but it was also in touch with the more advanced civilizations south of the Alps and Balkans. Excavations were carried on in the cemetery of the old salt-mining community between 1847 and 1864, and over 6,000 objects (of
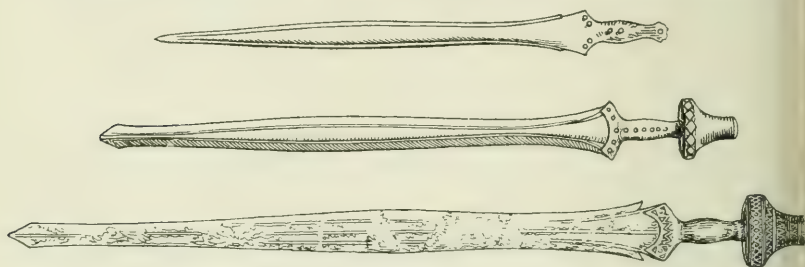


*Fig. 27.—Bronze and iron swords, Hallstatt. ($\frac{1}{11}$)

which a few are included in the collection, Cases 77, 78, and *Prehistoric Room*, Case G) were obtained from nearly 1,000 graves, just over half of which contained unburnt burials. Both cremation and inhumation were contemporary on this site, but it was noticed that the burnt subjects belonged to the wealthier or dominant class.

Perhaps the simplest division of the Hallstatt finds is that proposed by Prof. Montelius some twenty years ago :—

*Period I*, characterized by *antennae* swords, swords of Ronzano type, and bronze swords of 'Hallstatt' pattern.

*Period II*, iron swords of 'Hallstatt' pattern.

*Period III*, the short sword, transition to Early La Tène type.

The bronze, transition (sometimes with iron blade), and iron swords are here illustrated in the order named (fig. 27).

As the earliest remains from this cemetery go back about ten centuries before our era, it would be out of place to dwell at any length on the opening phase of Hallstatt, bronze being still

predominant. It is for this reason that objects of that metal are exhibited in the *Prehistoric Room* (Table-Case G) along with true Bronze-age antiquities from Austria-Hungary and Germany. A few words on the cemetery may be found on p. 98 of the *Bronze Age Guide*, and figs. 110 (*antennae*), and plate VIII, figs. 1 and 3 (bronze swords) in that volume will convey an adequate idea of two early sword-types. except that the 'Hallstatt' bronze sword has a tendency to bluntness at the point, which becomes more pronounced in later iron specimens. The Ronzano type resembles fig. 81 of the *Bronze Age Guide*, except that *antennae* take the place of the concave pommel; and the name is derived from a site 2½ miles from Bologna, where a richly furnished burial after cremation was discovered in 1848.

Certain stages and tendencies have been noticed in the ornamentation of bronze vessels at Hallstatt and contemporary sites. First, there is the purely geometrical style, lightly engraved without embossing. This is followed by another style. seen on many of the broad belts of thin bronze plate from Hallstatt, which have bosses of various sizes and embossed linear ornament, sometimes with rude stamped figures of men. birds, and horses. This is well seen also on the well-known shield found at Halland, Sweden. A third style has been connected with Mycenaean art, and consists of grouped bosses of various sizes as before, but outlined and connected by double or triple dotted and engraved lines. It is to this style that the Hungarian bronze belt exhibited (*Bronze Age Guide*, fig. 106) must be referred; and its possible connexion with Mycenaean culture has been referred to (p. 7).

It may also be observed that the design on bronze bucklers found in Coveney Fen, Cambs., and in Achmaleddie Moss, Aberdeenshire, bear a close resemblance to the ribbon pattern seen on several Mycenaean works of art, and the inference is that even as far north as Britain the Mycenaean civilization found its way (p. 24), the intermediaries being possibly Phoenician traders. A later phase at Hallstatt shows Oriental influence, and has already been touched on in connexion with figure-ornament (p. 15).

By comparing Hallstatt with St. Lucia (Goritz) and St. Michael (Carniola). Dr. Hoernes was enabled to classify the brooches and other typical remains of the Hallstatt period. The earlier series of brooches comprise the 'spectacle'-type with spiral coils of wire (fig. 28, no. 3) or with discs representing those coils; and the crescent type (fig. 28, no. 4) with chain-pendants. These are generally distinct from the later series, which includes the Certosa type (fig. 35), serpentine (by-form of fig. 26, IV *e*), cross-bow (fig. 28, no. 5), and animal (fig. 28, no. 1) brooches. Of the other Hallstatt brooches illustrated, those with spiral discs (nos. 2, 3) are found in Italy, though the double or spectacle-form (no. 3) is

practically confined to the south of the peninsula, and seems to be of Greek origin. Animal-brooches (no. 1) have been already referred to (p. 8), and the crescent-form with chains and pendants should be compared with specimens in the Aegina treasure (*Gold Ornament Room*) which is not later than the ninth century B. C. A compound brooch of cross-bow type (no. 5) also occurs, in which the bow and spiral spring are not in one piece, and the coil is strengthened by an axis. The drum-shaped brooch (no. 7) is also not uncommon in the Hallstatt period and has descendants in Gaul (Case P), while no. 6 may well be one of the earliest stages
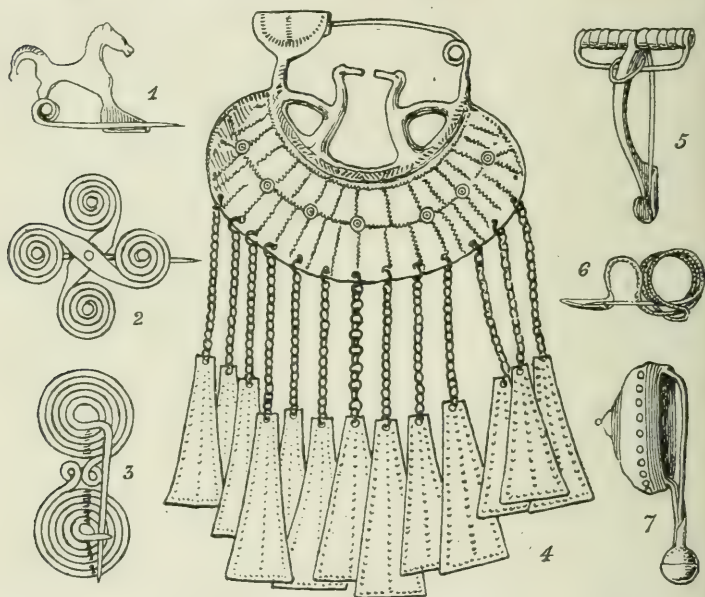


*Fig. 28.—Bronze brooches, Hallstatt.   (½)

of a common La Tène type (esp. fig. 77). The conditions at Hallstatt made it impossible to separate satisfactorily the types found in the cemetery, and serpentine brooches often occur with the spectacle-type here; but the following classification by Dr. Tischler may be considered correct in essentials :—

(i) Metal vessels with embossed rings and animal forms; buckets with wide bands (fig. 29); crescent and boat-shaped (fig. 26, no. II *e*) brooches and the more eccentric serpentine type; together with the tanged, leaf-shaped sword with abrupt point, already referred to.

(ii) Buckets with narrow cordons (fig. 30); the simple serpen-

tine and Certosa brooches ; and daggers with horse-shoe pommels (fig. 32).

This latter group (ii) belongs to the second period, which is most
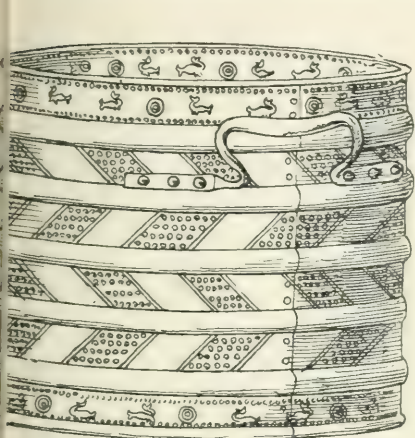


*Fig. 29.—Bucket with broad hoops, Hallstatt. (⅛)
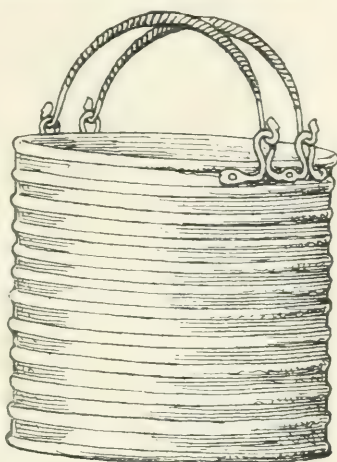
*Fig. 30.—Cordoned bucket, Hallstatt. (⅛)

characteristic of the cemetery, and must be treated in more detail. The great majority of the burials, especially those after cremation, belong to this stage, which may be placed about the eighth cen-



*Fig. 31.—Dagger with chape, Hallstatt. (¼)



*Fig. 32.—Dagger with branched pommel, Hallstatt. (⅓)

tury B. C. The most remarkable objects are the swords, which now attain enormous proportions, and have blades of iron, though the bronze weapons that have similar abrupt points may be contem-

porary.    With these occur a large variety of ornaments, including
brooches, iron celts (Case 78) modelled after those of bronze
(*Bronze Age Guide*, fig. 116, Florence), socketed spear-heads of
various shapes, helmets, clasps for the belt, pendants with chains
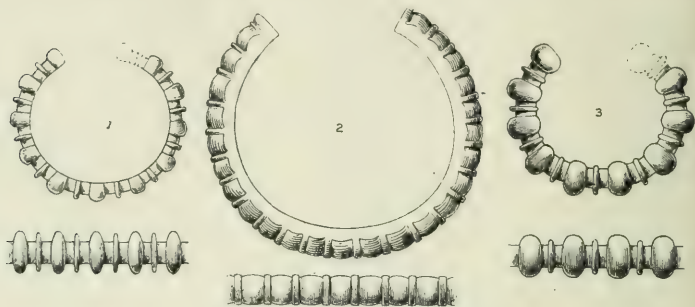


FIG. 33.—Bronze bracelets, Hallstatt.    (⅓)

and clappers, pins with moulded heads and point-protectors, lobed
bracelets of penannular form (fig. 33), beads, toilet-articles, and
models of animals.    Special mention must be made of the varied
assortment of bronze vessels with geometric decoration and bird-
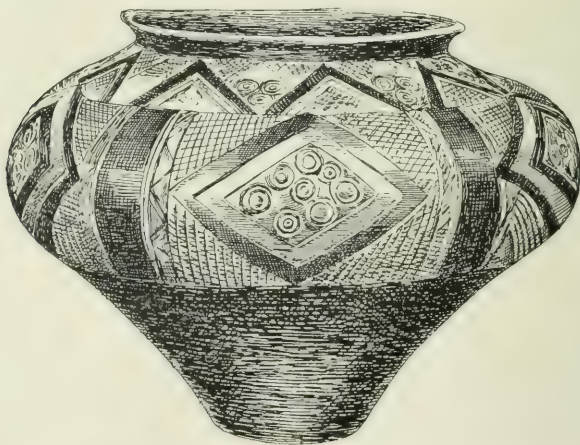


*FIG. 34.—Painted urn, Steinhülben, Gammertingen, Sigmaringen.    (⅙)

forms arranged in friezes ; while the pottery (as fig. 34) is well
manufactured and painted in gay colours with geometrical patterns
similar to those on the bronzes.    A few fragments are exhibited,
and in Wall-Case 4 is a bronze urn or bucket found in Ireland,

which will convey some idea of a common Hallstatt type (fig. 4), though the Austrian examples are naturally closer to the Etruscan prototype, and in the closing period of Hallstatt exhibit oriental influence.

Below the main shelf of Cases 77, 78 are several reproductions of swords and daggers, that will render further description un- necessary ; and as the significance of the burial rites observed at Hallstatt has been already dealt with (p. 6), we may proceed to a brief survey of the closing period on this site.

The third stage at Hallstatt seems to coincide with the seventh and sixth centuries B. C., and instances of cremation are still found during the period, though simple inhumation is the rule, both here and in South Germany. The huge iron swords have given place to daggers and short swords (figs. 31, 32), the latter corre- sponding to those of the opening period of La Tène culture. A typical grave of the third Hallstatt period contained the bronze vessel already referred to (p. 16) with fabulous monsters embossed on the lid. in oriental style ; while the well-known scabbard of a short sword, decorated with human figures, is referred to the fifth century, when the beginnings of another civilization are fully apparent.

Before proceeding to deal with the Keltic civilization named after La Tène, we may notice another important site of the earlier period that is frequently referred to in publications on the Early Iron age, and, like Jezerine (p. 76), has been well summarized by Dr. Robert Munro. The Hallstatt stage of culture is well represented at Glasi- natz (Glasinac), a district at a mean distance of twenty-four miles east of Serajevo, the capital of Bosnia. Interesting discoveries made in 1880 led to a systematic excavation of the area, and since 1888 various illustrated reports have been published. Glasinatz is a plateau with an average elevation of 3,000 ft. above the sea, and is almost enclosed by mountain ridges 4,000–5,000 ft. high. Twenty or thirty cemeteries have been located on the hill-slopes of this region, each containing several hundred graves, which are covered by mounds of earth and stones. In most cases more than one interment had been made in a mound ; and the mound- builders had evidently practised both cremation (30 per cent.) and inhumation (60 per cent.), while 10 per cent. of the grave-mounds contained both burnt and unburnt burials. The remains of the body, sometimes enclosed in an urn if cremated, generally lay on the original surface of the ground in a ring of stones, but in some instances a pavement of stones was prepared to receive the body. The dimensions of the mounds or barrows vary considerably, generally between 15 and 80 ft. in diameter, and 1 to 6 ft. in height. The smaller mounds are by far the most numerous, remains of funeral offerings being more plentiful in the larger mounds, and iron weapons marking a warrior's interment in some of the largest

opened. Of the thirty-two skulls admitting of measurement,
three-quarters were classed as mesaticephalic and dolichocephalic,
the rest being brachycephalic, showing that the population during
the Hallstatt period was not by any means homogeneous. It is
to this period and population that the *Wallburgen* (earth-works)
scattered among the cemeteries are referred, as some have yielded
remains of Hallstatt type in well-defined layers showing occupation.

Herr Fiala draws the following distinctions between burnt and
unburnt graves at Glasinatz ; and mainly on typological grounds
regards the latter as the earliest on the site. To these belong,
almost without exception, certain Greek brooches (p. 33), the
Peschiera type (like a modern safety-pin), and the spectacle-
brooches of iron, while the cremated burials contained the type
with transverse mouldings or knops on the semicircular bow, the
boat-shaped and Certosa brooches. Both kinds of burials con-
tained the bronze spectacle-brooch and the bow-brooch with two
loops or its varieties. The large spiral cylinders of bronze on the
arm (like those in Cases G and H, *Prehistoric Room*) were confined
to inhumations, and the deep bracelets of bronze plate to cremated
burials.

The iron sword (Case P) found at La Rochette (Drôme),
in the south of France is not known to have been deposited in
a grave, but goes to swell the number of weapons showing that
the type common at Hallstatt made its way through South Ger-
many, Alsace, Franche-Comté, Burgundy, and Côte d'Or, even to
Poitou in the west. It measures 32 in. in length, but part of the
grip, which originally resembled that of the bronze examples
shown in Case N from Joncquières and Ste. Cécile (Vaucluse).
is now missing, and the total length was therefore about 35 in.
Two other examples of the type are here exhibited from Corbeil
(Marne) and Diarville (Meurthe-et-Moselle), but are not in good
condition. The former came from an unburnt burial, and the
latter was noticed projecting from the road-surface between Corbeil
and Somsois, the handle having been already destroyed by passing
vehicles. The original length was about 39 in., and there was
a tapering rib on each face, as well as remains of textile rusted to
the surface. A burial was subsequently excavated on the same
spot, the bones being found in anatomical order and the head at
the west end. Two black vases, broken, lay at the feet, and behind
the head a bronze razor, of a type commonly found in the Côte
d'Or and neighbouring district.

Whether there was any racial connexion between the peoples
whose civilization is revealed to us at Hallstatt and La Tène,
is a question that has been much discussed but not finally settled.
It has been contended that in some parts of Central Europe (as
Bavaria and Styria) the Hallstatt culture persisted down to
Roman times and was not affected by the new tendencies apparent

in Gaul and the Upper Rhine district during the second half
of the Early Iron age in Europe. This contention is no doubt
based on the absence of La Tène forms on certain sites occupied
by people sharing the Hallstatt culture; but it is possible that
such sites were left untouched by the Kelts of the La Tène period,
or were deserted for some centuries before the civilization of
Rome found its way across the Alps. One of the best instances
of continuous habitation from the Hallstatt to the Roman period
is Velem St. Veits, about sixty miles due south of Vienna. Here
scientific excavation has distinguished cultural strata which show
how the Hallstatt forms were replaced by those of La Tène, and
how the latter passed from stage to stage till the Roman power
was felt in this region. It is possible that the Hallstatt folk
represent an early advance of the Keltic race into the Danube
basin, in much the same manner as the Umbrians preceded the
Gauls in northern Italy (p. 8); but as the civilization of La Tène
presents several important contrasts to that enjoyed by the salt-
mining community of the Austrian Tyrol, it would be unwise
to date the advent of the true Kelt earlier than the fifth century
B.C., when Hallstatt was in decline. It may well be that the



*Fig. 35.—Bronze brooches, Certosa, Bologna.

La Tène culture was introduced by newcomers of pure Keltic
blood, who came eastward into the upper Danube area from the
Rhine.

The remarkable site which has provided a name for the second
half of the Early Iron age in central and northern Europe has
been known about fifty years and has yielded an extraordinary
number of antiquities. It lies near Marin in a small bay at the
northern end of the lake of Neuchâtel, Switzerland, and the
ancient settlement was built on piles which extended over an area
1,000–1,200 ft. long and 250 ft. wide. The exact site of the
most fruitful excavations was an area of about 1,500 sq. ft. on
a submerged hillock (called Ténevière) constructed of broken
stones and beginning about 60 ft. from the shore but stretching
perhaps 150 ft. into the lake, which covered the summit with
about 2 feet of water—hence the term La Tène (the Shallows).
It is, however, probable that at the time of its occupation the area
formed part of the shore of the lake and was not surrounded
by water. A few relics from this station are exhibited in
Case 77 (p. 77); but though the site provides a title for the
four centuries preceding our era, it is here noticed out of its
proper chronological sequence.

The evolution of another series of brooches must here be in dicated, though at present it is not at all clear what connexion (if any) there is between the Italic series noticed above (p. 31) and the later group that is named after La Tène. At first sight a link between them seems to be afforded by the Certosa type (fig. 35), but the latter remained practically unchanged during a period that saw several modifications of the La Tène type, and for this among other reasons it is more prudent to omit this Bolognese type from the series now to be investigated, though it will claim attention later in connexion with the Ticino valley specimens.

The main outlines of development were drawn by Dr. Otto Tischler in 1885, and have not been altered by subsequent in vestigations, though there are exceptional cases due to the survival of earlier types. In the fifth century B.C. there was in use throughout the upper Rhine area and in certain other parts of central Europe an elaborate and somewhat cumbrous form of brooch ornamented in relief with masks or animal heads, in a style well represented by certain collars in the Morel Collection (fig. 50). These specimens were possibly derived from some classical original (perhaps like no. II d of fig. 26), but the prototype is effectively obscured by the extravagant ornamentation : certain of them are compound, that is, with the pin not in one piece with the bow as is the case with the La Tène series proper.

In the T-shaped brooch the spiral spring is abnormally ex tended, and in consequence had to be strengthened and kept in position by a metal axis which in such cases passed through a hole in the head (fig. 28, no. 5). The tension is often increased in the normal pattern by passing the chord (or wire connecting the bilateral coils) under the head of the bow (fig. 39). A single or double coil on either side was, however, found to give sufficient tension in most cases, and the chord is often found on the outside of the spring, away from the head (fig. 38).

The essential similarity between the typical brooch of Dux (north-west frontier of Bohemia) and the Mycenaean pattern, or modern safety-pin, hardly needs pointing out. The pin's point is prevented from slipping out of the catch by the resis tance of the coiled wire at the other end, which passes into the bow and is usually thickened in the process. The curved bow, or backbone, of the brooch obviously gives more room than the primitive types (fig. 26, I a, II a) for the folds of cloth pierced by the pin, and the form into which the foot finally passes is the key to its chronology. Brooches of La Tène I type have the foot, which expands for a certain distance to form the catch plate, turned back towards the bow ; but the extremity, which is generally moulded and faintly resembles a bird's head, barely touches the bow, which is also decorated, generally with transverse

mouldings (fig. 36). It is to this type that most of the Gaulish
specimens in the Morel Collection belong (Cases 65-74), and
a representative series is arranged on two boards in Table-Case P.

Certain varieties of this type occur also or exclusively in the
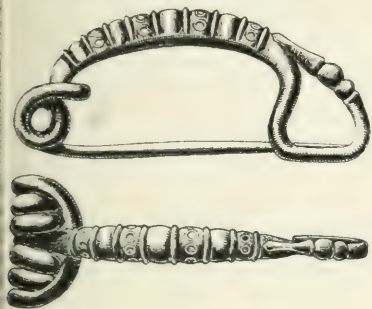


FIG. 36.—Bronze brooch, Dux,         *FIG. 37.—Bronze brooch, Jezerine,
   Bohemia.   ½)                              Bosnia.  (½)
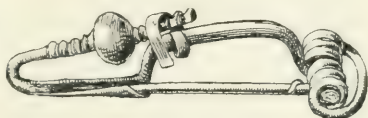
following period (La Tène II), for example those with a vase-like
terminal on the foot, or a spherical bead of glass in the same
position; but these exceptions do not invalidate the rule that
La Tène I brooches have the foot free of the bow or only just
touching it. There was an evident tendency to increase the length
of the brooch, and those of the succeeding period (La Tène II),
when made of iron, are about twice the size of the preceding. The
foot extended in proportion, and was no doubt easily bent in
consequence: a contrivance for keeping the end in position
is seen on a specimen from Jezerine, Bosnia (fig. 37). This ring
or collar became a permanent feature during the middle period
of La Tène (fig. 38) and is, indeed, characteristic of the locality
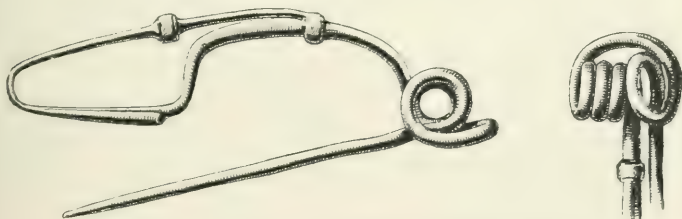


FIG. 38.—Iron brooch, La Tène, Switzerland.  (⅔)

which gives its name to the first four centuries B.C. The metal
band became an integral part of the bow, and eventually a mere
moulding; but some specimens have the extremity of the foot

beaten out and then wrapped round the bow, without any ornamental additions (as fig. 81).

The next stage (La Tène III) is marked by a complete junction of the bow and foot, which now form a continuous curve, with a return to form the catch-plate, and to reach the inner curve of the bow (fig. 39). The open space above the catch-plate is thus roughly triangular, and in course of time is partly filled with crescents (fig. 83), or a step-pattern (fig. 109), eventually becoming a solid plate (fig. 84). It is at this stage in its evolution that the La Tène brooch succumbs to the influence of Imperial Rome, and the by-forms of the early centuries of our era often exhibit a combination of Keltic and Roman patterns.

The above summary indicates the main lines of development, and will serve as an introduction to the study of the brooch as an important aid to chronology : further details and varieties will be noticed in the description of the Cases (pp. 65, 72, 79). It must always be remembered in applying this test, that characteristic types were apt to be long-lived, and the date of a 'find'



Fig. 39.—Bronze brooch, Swiss Lake-dwelling.   ($\frac{2}{3}$)

(though not of a site) must be governed by the latest type represented. A good example is the station of La Tène itself, where brooches of La Tène II type are found in conjunction with La Tène III and even Roman relics ; and a similar succession may be noticed in the more extensive collection from cemeteries in the Ticino valley. The occurrence there of brooches belonging to Tène II, III, and even the Roman period, has led some authorities to attribute the burials to a later time than that indicated by the bulk of the relics. The large number of brooches belonging to the Golasecca type points to intercourse with the south (perhaps Etruria), before the introduction of Keltic forms, and it should be noted that while the Certosa type (fig. 35) is well represented, no intermediate forms occur to suggest that the La Tène series is derived from that source.

The Giubiasco cemetery in the Ticino valley, from which a series is exhibited, belongs to the same group as Castione and Molinazzo-Arbedo, published by Herr Ulrich. These sites are all near the railway a little above Bellinzona, at the northern end of the Lake Maggiore, and have proved remarkably rich in grave-

furniture. Discoveries were made at Molinazzo-Arbedo as long
ago as 1874, but the cemetery was not thoroughly explored till
twenty years later, whereas nothing was known of the Castione
site till the railway-station was extended in 1892, and a large
collection purchased for the Zürich museum. The pottery and
ornaments exhibited in Case O, together with a similar series
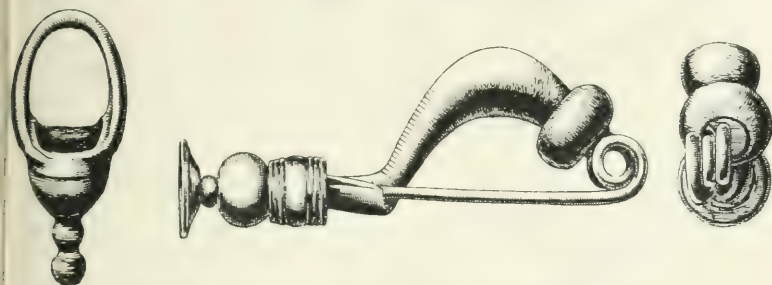


Fig. 40.—Brooch and pendant, Giubiasco, Ticino.  ($\frac{2}{3}$

in the adjoining Department of Greek and Roman Antiquities, are
fairly representative of the types discovered ; and the brooches
have been divided into two main groups. The first of these
comprises the following : leech-type, known also as the Golasecca
type, named after the cemetery at the southern end of Lake
Maggiore : Certosa type (fig. 35), named after the Carthusian
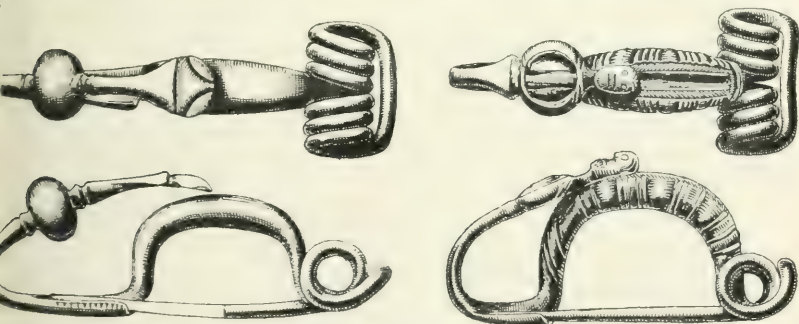


FIG. 41.—Bronze brooch, Giubiasco.  ($\frac{2}{3}$)
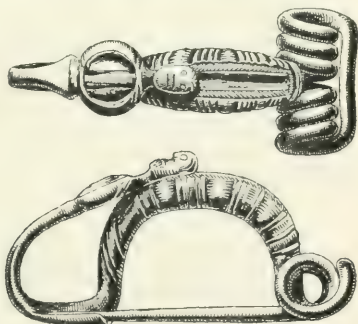
FIG. 42.—Inlaid bronze brooch,
Giubiasco.  ($\frac{2}{3}$)

monastery (Charterhouse) near Bologna, where the type was
commonly found in association with red-figure Greek vases of
the sixth and fifth centuries, B.C. : the simple bow-brooch with
spiral spring (fig. 26, I b), serpentine and horned types (varieties
of fig. 26, IV) with heavy catches terminating in knobs (fig. 40).

The above group may be dated anterior to the irruption of the Gauls into North Italy early in the fourth century B. C., and the second group may be referred as a whole to the first two centuries of their occupation, as characteristic specimens of La Tène II and III are comparatively rare from this area. It must, however, be confessed that several brooches (fig. 41) have a later appearance than the same type elsewhere, and a bulky type (fig. 42), inlaid with coral or some similar material, has affinities in the Rhone valley and even in England (Arras, p. 108). This second or Gaulish group includes bronze and iron examples of La Tène I type, as found also in the Marzabotto cemetery (fifth century, B. C.), one of several important sites in the vicinity of Bologna; and certain local types of less importance. A striking feature of these cemeteries is the large number of rings and basket-shaped pendants (fig. 40) attached to the bow of the brooch, especially of the Golasecca type. Amber too was abundant,



Fig. 43.—Ear-ring with amber bead, Giubiasco. ($\frac{1}{2}$)



Fig. 44.—Types of pottery, Giubiasco. ($\frac{1}{6}$)

and was worn either on a necklace of spindle-shaped beads or on bronze ear-rings (fig. 43), with a single bead, both the hoop and amber being of exceptional size. Cremation was exceptional on these sites, perhaps occurring only in the Etruscan period (p. 44), and the majority of the graves were covered with slabs of

stone which rested on dry-walling of rectangular plan about 1 ft. high, and generally east-and-west or north-and-south. In spite of this protection, the graves were full of fine sand when opened, and in many cases all trace of the skeleton had disappeared, though the burnt bones were well preserved in the cinerary urns. Most, if not all, of the pottery was made on the wheel, the ware being a reddish-buff, containing a fair proportion of sand and mica. Some of the commonest forms are here illustrated (fig. 44): most of the specimens are plain but some are ornamented with cordons, and a few specimens were found with lattice design and stripes in black or colour. A sword with chape recalling the trefoil form (fig. 48, no. 1) and curved scabbard-mouth, a knife-sword, and iron helmet, are published, but very few weapons were found. Beside beaked flagons of the usual Greek pattern (as fig. 45), pottery copies of the succeeding type (fig. 9) were also found. On the whole these cemeteries contain many early forms, with some indications of later occupation; and it may be that the early culture of La Tène was here developed undisturbed. The St. Gothard pass, which is approached by the upper Ticino valley, seems not to have been used at this period, and the trade-route only crossed the valley at the head of Lake Maggiore, to bear eastward up the Moesa to Misox, through the Grisons and so to the head-waters of the Rhine and the chain of Swiss lakes.

A few details may now be added as to the affinities of the peoples who wore these brooches, and shared in the civilization of west-central Europe during the La Tène period. Caesar, in a well-known passage, states that in his own day the Belgae, Aquitanians, and Kelts were distinguished from each other by languages, customs, and laws. The Garonne separated the Aquitanians from the Kelts, while the Marne and Seine separated the latter from the Belgae. The Aquitanian race is considered by some to survive in the French Basques, but the two other divisions are more important in the present connexion. The Keltic region extended from the upper Rhone (north of the Roman province of Narbonensis) to the Rhine, bordering on the Helvetii of Switzerland and the Sequani of the Jura mountains, while its western limit was the Atlantic. Dr. Topinard observed that in prehistoric times there was a definite race of tall blond warriors, who scoured the whole of Europe and sent expeditions into Asia and Africa. Whatever local names may have been bestowed on them, these people are undoubtedly Galates, perhaps akin to the Germans, but preceding them in history. Under their domination was an alien race, clinging to the soil and dragged unwillingly from one end of Europe to the other by their masters. This substratum of population was Keltic (generally spoken of by Caesar as *Galli*), and is to-day represented from the

physical point of view by the Savoyard. The dominant race has been called Kymric ; but it is better to use Caesar's term for the warriors who sometime before his day had conquered north-east Gaul and part of Southern Britain, but were generally regarded as Kelts by the Romans, who were possibly misled by the appearance of captives in the capital. There was, and is to this day, a striking difference in the physical aspect of the two races.

The term Galatae in the mouth of the Greek geographers and historians who devoted themselves to Roman affairs, may actually be the same word as Keltae and the more usual Latin word Galli ; but though all three terms were loosely used and often applied to the same tribes, there seems to have been a fundamental racial distinction between the warlike tribes who sacked Rome or Delphi and the native inhabitants of Caesar's *Gallia Celtica*. This presumed difference has already been noticed, but another point deserves attention. The famous Druidical system that Caesar found existing in Gaul, may have been familiar to Aristotle ; and the late M. Alexandre Bertrand pointed out that this hierarchy was in Gaul apparently confined to the Keltic area, though its chief seminaries at that time were in Britain, and perhaps originated with the Goidelic population. The common people had no voice in the government, and were subject not only to the Druidical caste, but also to the knighthood or nobility who shared the supreme power. This military aristocracy is considered to have been an accretion, due to the ascendancy in Gaul of the fighting stock which scorned amalgamation with the servile Keltic population ; and it would be interesting to connect the Galates with the Belgic confederation of Caesar's time.

The Belgae are known to have included twenty-seven tribes in north-east Gaul, most of which were German. Six were undoubtedly of Teutonic blood, while three are marked out as the chief tribes of Belgica and were probably of pure descent. These were the Ambiani, whose capital was at Amiens : the Atrebates, in the district round Arras ; and the Bellovaci, probably round Breteuil—all near the coast of the Channel, in a line drawn from Calais to Paris. The Belgae were known as the bravest and most warlike people in Gaul, and it is tempting to see in this characteristic a survival of the Galatian spirit. While continually fighting among themselves and against the Germans and Kelts, they still coalesced to some extent with their neighbours on the east and south ; and the annual assembly of the tribes in the territory of the Carnutes (south-west of Paris) shows that there was in Caesar's time diplomatic communication between the various races.

Of the Belgic tribes the Remi were not the least important, and it must be remembered that the Gaulish antiquities here exhibited in the Morel Collection are almost exclusively from the

PLATE II.  GAULISH CHARIOT-BURIAL, SOMME BIONNE, MARNE.

neighbourhood of their capital, the modern Rheims. Though there is still a chronological difficulty, the occurrence of the same type of pottery at Somme Bionne and at Aylesford is not surprising, as the Belgic occupation of southern Britain is an historical fact. A clue to the date of that occupation is afforded by archaeology, for in the interval between 400 and 100 B. C. the mode of burial had been altered, and vases of the same type that accompanied the warrior to the grave in Champagne were later used to contain the ashes of the dead in this country. Some precision is by this means gained for the vague statement of Caesar on the Belgic occupation of Britain—'the interior of Britain is inhabited by people traditionally held to be indigenous: the coast by Belgian invaders who came over for the purpose of plunder and making war. The Belgae as a rule retain the names of the states from which they sprang, and after establishing themselves at the point of the sword, began to till the ground '— and we may conclude that in the days of Divitiacus, who ruled on both sides of the Channel, the practice of cremation was fully established.

The battle of Sentinum (Umbria) in 295 B. C., when the Roman army met the Gauls, is somewhat carefully described by Livy ; and it is clear that the barbarians employed cavalry and chariots, on that occasion as well as seventy years later, at the battle of Telamon (Etruria) ; but the Gauls do not seem to have fought from chariots in Italy after the third century, B. C., while this mode of fighting was a novelty to the Romans at Sentinum. In Southern France, chariots carrying a warrior and driver were in use among the Gauls about 100 B. C., but we know from Caesar that they had gone out of use before his invasion of the country in 58 B. C. More than a century later they were still used in warfare by certain British tribes. In the Keltic area of the Continent a number of burials have been discovered in which the warrior was buried with his chariot: these form an important class, for the most part richly furnished, and may be approximately dated by the style of ornamentation, and still more precisely by vessels of Greek manufacture sometimes found in association. It is clear that the Kelts were using two-horse chariots in central Europe in the fifth century B. C.

The richest burial of this kind is that of La Gorge Meillet (Somme Tourbe, Marne), now removed in its entirety to the French national museum at St. Germain. It was strikingly rich in ornaments set with coral, and corresponds closely to that of Somme Bionne, containing the harness of two horses, and a bronze flagon (*oenochoë*) of the same Greek type. It had in addition a helmet, of which a cast is exhibited in Case 76 (p. 68), while the sword, lances and spear-head, pottery, and general arrangement of both graves enable us to refer them to the same

period and people. A considerable number of chariot-burials have been found in Dépt. Marne (as Prunay, Case 66), but several examples are also known from Central Europe, including Switzerland, and a few from Paris and Western France (p. 84).

In the La Gorge Meillet burial coral-mounted ornaments were numerous, and the helmet belonged to a type particularly rare. Two warriors had been interred, one exactly above the other, the heads being at the south end of the grave, and the horse-harness beyond the feet. The Somme Bionne tomb contained only one body, laid between the two wheels of a chariot, the latter standing in two trenches cut below the general level of the grave. Another trench, containing bridle-bits and trappings of two horses, had been cut across the foot of the grave, and was connected by a narrow channel, 30 in. long, in which the pole of the chariot had been placed. The accompanying plate II, reduced from that exhibited in Case 69, from M. Morel's Album, will render a detailed description of the objects and their relative positions unnecessary, while the entire contents of the grave, with the exception of the skeleton, are exhibited in the middle and lower part of Cases 69 and 70.

The main portion of the grave measured $9\frac{1}{2}$ ft. in length, 6 ft. in breadth, and nearly 4 ft. in depth, while the exterior trench, containing the harness, was about $4\frac{1}{2}$ ft. long, 1 ft. wide, and 14 in. deep. The whole was surrounded by a circular fosse over 3 ft. wide, with a diameter of about 18 yards, as at Pleurs, Connantre, Marson, and St. Jean-sur-Tourbe (= La Gorge Meillet). Three or four other fosses were noticed in the cemetery of Somme Bionne, but the enclosed burials had been previously rifled. Graves distinguished in this manner were no doubt those of important personages.

The chariot wheels are 3 ft. in diameter, somewhat larger but narrower than those from Yorkshire (Cases 52–54). The distance between them was $4\frac{1}{2}$ ft., and it is clear that the lower part of the body rested on the axle and pole of the chariot which were level with the floor of the grave. This implies that the chariot was open in front, though there was no doubt boarding or basket-work at the sides to protect the wheels. Such too must have been the pattern used by the Britons of Caesar's time, for he describes the charioteers as running out on the pole and yoke when travelling at full speed. Illustrations of Greek and Egyptian chariots with the front open are also extant.

The open-work bronze plates (plate III) as well as two moulded discs in Case 69, were evidently attached to the breast-harness of the horses, and other ornaments no doubt belonged to the head-stall. It is satisfactory to be able to date this style of decoration (which is also found at La Gorge Meillet) by the vessels of Greek manufacture included in the grave. The flagon (fig. 45) is of

PLATE III. BRONZE-WORK FROM CHARIOT-BURIAL, SOMME BIONNE (½).

a well-known type, for which parallels must be sought in the adjoining Department of Greek and Roman Antiquities ; and it should be mentioned that the embossed gold band which was subsequently attached to the front, is probably a diadem which

was placed entire in the grave, and was certainly not found in position on the flagon. The kylix belongs to the red-figure period, and may be safely assigned to the fifth century B.C. ; similar specimens are exhibited in the *Third Vase Room.* The third vessel was of Gaulish fabric and much damaged, but resembled in shape and colour the large red-ware urn from Somme Tourbe.

On the warrior's left were three iron lances and a knife ; and a plain finger-ring of gold is worthy of special mention as a rarity at that period, another example being found in a grave at Mesnil-les-Hurlus. The sword (fig. 46), which was found on the right side of the body, forms a convenient starting-point for the
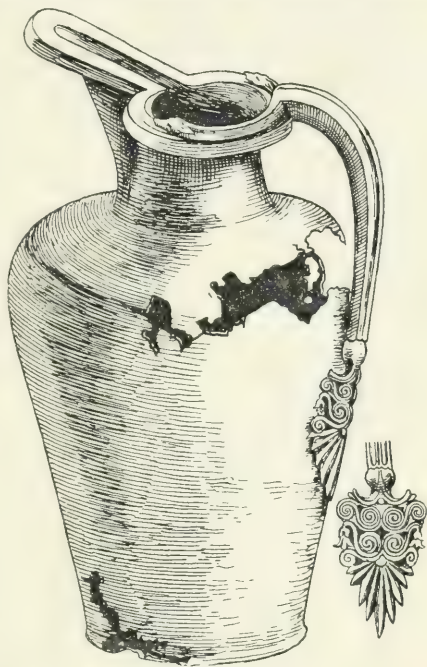


Fig. 45.—Bronze flagon, Somme Bionne, Marne. ($\frac{1}{4}$)

series named after La Tène. The development was perhaps not uniform or continuous throughout the Keltic area, but there are certain well-defined stages which seemed to Dr. Tischler to correspond with his type-series of brooches. This evolution can
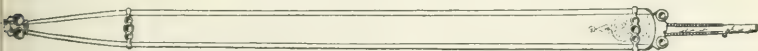


Fig. 46.—Sword in bronze scabbard, Somme Bionne. ($\frac{1}{5}$)

be traced better in the various forms of the scabbard than in the blade of the sword, and a representative series of both is here illustrated (fig. 48, and plate VI). The Somme Bionne sword has a scabbard $30\frac{3}{4}$ in. long, with a bronze front, which is crossed by two ornamental bands and bears a pounced design near the

mouth (fig. 47). The chape is of trefoil form, pierced on either side of the centre, and closely corresponds to two others in the Morel Collection (Case P). One such sword had three coral studs attached to the chape. only two remaining, while in place of the
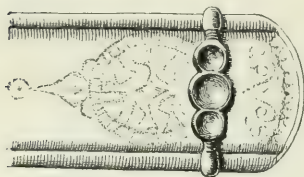


FIG. 47.—Design on scabbard, Somme Bionne. (½)

dotted design at the mouth of the scabbard was a bronze escutcheon embossed with three masks (fig. 49). The trefoil chape may therefore be considered earlier than 400, and from it was evidently derived the pierced form seen on several swords exhibited from the cemeteries of Marne. The openings became larger and the circular settings passed into slight protuberances, while the outline of the scabbard-mouth. which was simply curved at Somme Bionne. gradually acquired an ogee-curve, that is
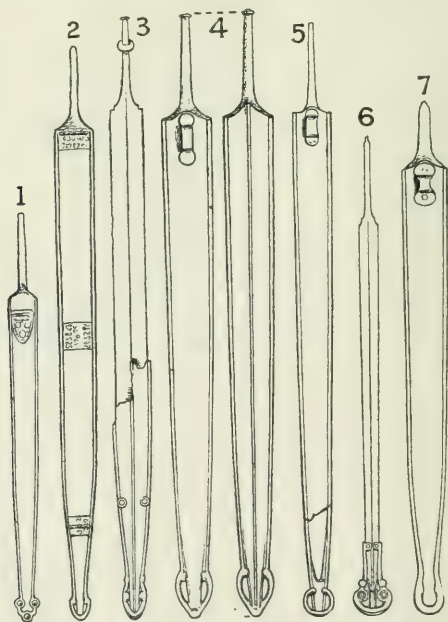


FIG. 48.—Iron swords from Gaul. (1/10)

held to be characteristic of the middle period of La Tène, and is well represented on that site. Swords of this type would therefore agree with the brooches of La Tène II (fig. 38) in the

Morel Collection, and it is fairly evident that the closed chape (fig. 48, no. 7), is derived from the trefoil through the open series, and is the latest form represented from the Marne district. The ring-chaped sword, of which contemporary examples are shown (fig. 48, no. 5), belongs to a parallel series that seems to be derived from the fish-tailed Hallstatt type (fig. 31, and specimen from Bussy-le-Château) by gradual elongation of the chape, and eventual attachment to the edge of the scabbard. In Case P is a short sword in bronze scabbard which may be looked on as one of the earliest stages ; next to it is a dagger in a sheath of bronze with ring-chape (plate VI, no. 8), and the transitional stage may perhaps be detected in the Thames example (plate VI, no. 1), in which the terminal has become semicircular, and bears knobs which recur on the typical ring-chape (fig. 73 and fig. 48, no. 6). Early examples, with the simple ring, are known from the chariot-burial of La Gorge Meillet, and the Marson cemetery, both in Dépt. Marne ; while a later date must be given to one found in a burnt burial at Cernon-sur-Coole, in the same department.

Reserving British developments of the scabbard (p. 95), we may point out the similarity between the latest type in the Champagne series (fig. 48), and the form characteristic of La Tène itself (Case 77). Here recurs the surface-ornamentation below the mouth and the bar with circular depressions as on the Somme Bionne sheath ; but the chape is little more than a thickened binding which, with the aid of circular ears at about one-third of the whole length from the point, keep the back and front of the scabbard to-



FIG. 49.—Escutcheon on scabbard, Marson, Marne. ($\frac{2}{3}$)

gether (plate VI, no. 3). The ogee curve of the mouth is very marked and a constant feature till the closing period of La Tène is reached. In the lower part of Case 78 may be seen casts of swords found at Alesia (Mont Auxois, Alise Ste. Reine, Côte d'Or), that can be approximately dated. It was here that in 52 B. C. Vercingetorix made his last stand for Gaulish independence, and the sword-type may be considered characteristic of about 100–50 B. C. The chape had been merged in the binding, and the point of sword and scabbard had been rounded off, while the mouth of the scabbard was now quite straight.

The well-known burial at Waldalgesheim (near Bingen on the Rhine) is taken by Dr. Reinecke as typical of his second period (B), which is otherwise known as Early La Tène. The personal ornaments of this find closely correspond to the bulk of the Morel Collection from the Champagne, but the metal bucket (fig. 8) shows a departure from the earlier models, and exhibits the

drooping palmette which brings it into connexion with Greek art of the period (p. 18). Throughout the Keltic area the grave-mound now becomes less frequent, giving way to large cemeteries containing unburnt burials. There are, however, certain districts in which the grave-mound persisted, and many secondary interments in pre-existing grave-mounds evidently date from this period ; but there is not enough evidence to show that these anomalies are due to racial differences or tribal movements. The inclusion of the warrior's chariot and horse-harness in the grave now becomes very exceptional, Waldalgesheim being an isolated



Fig. 50.—Bronze torc and detail, Dépt. Aube. ($\frac{1}{2}$)

case ; but we know from history that the fighting-car was still retained by the Kelts. and its presence in the Yorkshire graves seems to show that it persisted in Britain longer than elsewhere.

Ornaments at this stage are more numerous in proportion, and their style shows a certain deterioration. Figure-designs, as opposed to the geometrical, are scarce and badly executed, being sometimes represented by meaningless reliefs or knobs. The brooch of the so-called La Tène I type is found in its purest form (fig. 36) at Dux in Bohemia (Case 77), and most of the specimens in the Morel Collection are intimately connected with it, though some are doubtless survivals in the succeeding period, as seems to be the case in

Britain (figs. 77–80). The most ornamental articles are, however, the torcs or bronze collars which at this stage have prominent buffer-shaped terminals. The ornament is generally in relief and often confined to the two ends. It consists of scroll-work, evidently derived from classical models, but much debased, and sometimes includes masks that recall the earlier style (figs. 50, 42). Armlets and anklets are generally ornamented in the same way, except that the terminals are wanting and the ring is often complete. Various modes of fastening may be observed in the collection; for instance, the twisted type, from which the name is derived,
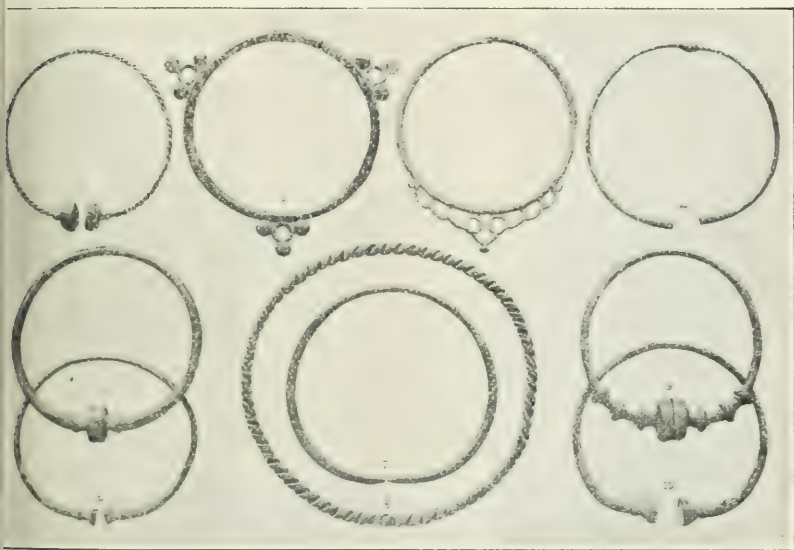


FIG. 51.—Bronze torcs from Gaul.  ⟨⅛⟩

has either a rivet (fig. 51, no. 8) or a hook (as at Marson, Courtisols, and Bergères-les-Vertus), sometimes being an unbroken ring (as another from Courtisols) or without any fastening. Another method was to break the hoop at one (fig. 51, nos. 2, 5) or two (no. 3) points, a peg and socket junction being rendered possible by the elasticity of the metal. But the most usual form of the torc is an open ring, with enlarged terminals, the latter being worn in front of the neck and giving scope for ornamentation.

The torc as a personal ornament seems to have been derived originally from the East (*Catalogue of Oxus Treasure*, p. 53), and was, like their dress, perhaps borrowed by the Gauls from

Scythian tribes with whom they came in contact along the Danube, then the great commercial highway between the east and west of Europe : the similarity between one with animal-head terminals from Vieil Toulouse (Haute-Garonne), and that on the neck of Darius on the Pompeian mosaic representing the battle of Issus (B. C. 333) should be noticed in this connexion.    The collar of twisted metal was a national emblem among the Keltic peoples, and the present name is derived from the Latin *torques*.   It is often represented on bronze statuettes (*Bronze Room*), and on such statues as the ' Dying Gaul ' (p. 69).    Certainly as early as B. C. 361 this form of collar had reached the west, for in that year Titus Manlius, after slaying a gigantic Gaul, placed the collar of his fallen foe on his own neck and acquired the surname Torquatus. It is not possible to arrange the large series of bronze collars in the Morel Collection in chronological order, or even to furnish a rigid classification ; but it may be regarded as certain that the undivided buffer terminal (fig. 51, no. 5), as from Somsois, was descended from the more ordinary form, with two separate ter- minals of the same general form (no. 9) ; and what is, perhaps, a still earlier form, is exhibited from Courtisols, next to the com- plete ring from Dépt. Aube (fig. 50), the design on these two being scroll-work in relief, like that on some brooches of La Tène *A* (fifth century B. C.).

A specimen from Mesnil-les-Hurlus shows that beads and amu- lets were sometimes strung on the collar, and this fashion may account for the protuberances from the edge of several, either at three points, as from Connantre (fig. 51, no. 2) and Pleurs, or only at the front, as from Fontvanne (no. 3), Pleurs, and the Seine. From articles associated with them in graves, it is evident that tubular collars of plain thin bronze, like those from Marson, Charvais, and Wargemoulin, came quite early in the series, and may date from the fifth century : several bracelets of similar con- struction from the Marne district are included in the collection. It should be added that the slight swelling resembling a plumber's joint (fig. 51, no. 4) seen on examples from Somsois, Etréchy, and Bergères-les-Vertus were no doubt repairs, but possibly became an ornamental feature in some instances.

In the *Gold Ornament Room* is a specimen from France some- what like fig. 51, no. 6 ; and another, probably from the same country, like no. 1, but with plain hoop, which was shortened by means of an ungainly knot.

A chronological starting-point for La Tène I may be found in the history of Bologna, a town situated at the northern foot of the Etruscan Apennines.    Before the irruption of the Galatian Kelts about 400 B. C. (p. 11), the site was occupied by the city of Felsina, and the Certosa cemetery contains remains of the inhabitants, as well as brooches and other articles of definite types.    The Certosa

brooch, then (fig. 35), can be assigned as a rule to the fifth cen-
tury, as it occurs in the later graves of Felsina ; while another
type, of the same general form, but differing in detail, is found in
the Keltic cemetery evidently belonging to the city of Bononia,
which was founded by the victors on the ruins of Felsina and
became a Latin colony in 189 B. C. This later type of brooch has
a bi-lateral spring, which is an advance on the Italian spring (on
one side of the head), and furnishes a link between the earlier and
later stages of the Early Iron age in central Europe. The double
spring is almost universal throughout the Keltic area during the
La Tène period, only yielding to the hinge in early Imperial times.

During the early period of La Tène classical influence is still
apparent in the sepulchral pottery, and especially in the remark-
able flagon with cylindrical spout (fig. 9) found at Waldalgesheim.
The form is evidently derived from the classical beaked flagon like
that from Somme Bionne (fig. 45) ; and the dotted design (repro-
duced in line, fig. 9) is not one of the best Keltic adaptations of
Greek motives.

The geographical limits for finds of this period closely corre-
spond to those for the fifth century, except that the German moun-
tain-barrier is included, discoveries having been made both in the
Thuringian forest and in Silesia west of the Oder. Eastward
they extend to Buda-Pesth, with outliers in Transylvania. South
of the Alps this type of brooch is fairly common, with correspond-
ing articles, in graves that clearly belonged to the Keltic popula-
tion of North Italy, and the barbarian has left his mark some
way to the south, at least on the east coast. Their presence is
easily explained from history (p. 11), and the occurrence of Greek
or Etruscan wares in their graves shows that they had intimate
dealings with their more highly cultured neighbours or subjects.
Nor was the borrowing altogether on one side. The Kelts took
evident pride in the vases and bronzes, the golden wreaths and
toilet articles of Italian civilization, but themselves introduced the
long shield (fig. 68) which was retained by the Roman legionary
down to the Christian era.

In spite of extensive discoveries in the Ticino valley (p. 44)
very little is known of Keltic settlers at this time on the
southern slopes of the Alps or in the Adriatic and Balkan states ;
but there can be no doubt that they existed, and their expedi-
tions to Macedonia and Asia Minor early in the third century
are historical facts (p. 13). It may be noted here that the
cemetery of Golasecca and others near it on the banks of the
Ticino, south of Lake Maggiore, contained exclusively cremated
interments ; and the occurrence of unburnt bodies in mixed
cemeteries marks the advent of the Galates in northern Italy.
The famous grave of a cremated warrior at Sesto Calende was
held by M. Bertrand to be that of a Kelt belonging to a previous
invasion (p. 8).

Apart from the chariot-burial, the cemetery at Somme Bionne contained about eighty graves, more than half of which had been previously rifled. They were in isolated positions, cut in the chalk, and for the most part orientated in the usual way, with the head west. It was observed that several contained bones of the pig, sheep, or other animals that may have been consumed at the funeral feast, and several objects of interest came to light, all presumably of the early Gaulish period except an iron brooch of La Tène II type, $6\frac{1}{2}$ in. long. Beads of amber and coloured glass were worn on ear-rings and bracelets, and one curious amulet consists of two branches of coral (now a pale pink) bound together by a riband of bronze. A pair of typical brooches retains the connecting chain which measures $6\frac{1}{2}$ in.; and the pattern of a pair of open-work bracelets consists of rings separated by triple transverse mouldings. A number of stout bronze rings, like those found with the bridle-bits in the chariot-burial, show considerable skill in casting, and a gruesome interest attaches to an amulet cut from a human skull (fig. 52) as at Bergères-les-Vertus. The best representative collection in the museum from a cemetery of La Tène I period is, however, that of Marson, remains from which may be seen to the left of the chariot-burial.



Fig. 52.—Skull-pendant, Somme Bionne. ($\frac{3}{4}$)

On a tongue of high chalky ground at Montfercaut, eight miles east of Châlons-sur-Marne, M. Morel discovered in 1873 the solitary burial of a warrior. The grave was about 4 ft. deep and ran east and west, the head lying at the west end (fig. 53). The trench was filled with chalk, with a thin layer of blackish earth overlying the skeleton, which had not apparently been placed in a coffin. On the right side was an iron sword in a sheath of the same material, and between it and the body had been placed a lance, about $4\frac{1}{2}$ ft. long, the iron head being by the right knee and the ferrule beside the skull. The bones were well enough preserved to show the posture of the skeleton, and the



Fig. 53.— Plan of grave, Montfercaut, Marson.

skull was recovered intact, proving to be highly brachycephalic.
A large wooden buckler had been placed on the warrior's left,
the heavy boss resting on the hip bone ; and near the left elbow
was an iron knife, by the side of which, lying beneath the umbo,
lay a pair of iron shears. The grave contained only one piece of
pottery, but perhaps the best example of its kind in the collection.
It had been placed in the corner of the grave to the right of the
feet, and is of fine lustrous black ware, turned on the wheel, with
a raised band painted red on the shoulder, above a band of
engraved ornament (Case 65).

On another site, about half a mile north of the village of
Marson, about 200 Gaulish graves were discovered in 1873 on
the summit and slope of a hill, some in groups of four or five,
others isolated. The graves were 5 ft. or less in depth, and
several contained bodies of men, women, and children, either
super-imposed or side by side : in general they were east and west,
the heads at the west end. Nearly half the trenches had been
ransacked, but in many cases only the western half had been
disturbed, and many vases placed near the feet had thus been over-
looked. Two infants were found wearing neck-rings of iron, one
of them having been buried in a sitting position at the mother's
head ; and another shared the grave of a man. One grave con-
tained, at a depth of 14 in., the body of an infant wearing a twisted
collar of bronze ; below, without grave furniture, was the body
of a male adult, and at the bottom of the grave a woman wearing
on both fore-arms a bronze wire bracelet of about 20 coils. On
the neck of another skeleton was a bronze torc, and at the feet
an unornamented vase provided with a cover, 12 in. high.

During the next season's excavations, a warrior was found
buried with his sword, which measured 3 ft. in its scabbard
and had been suspended by four bronze rings ; also, at the feet,
three large urns and a vase that may have been a drinking-cup.
The scabbard has a pierced trefoil at the point, and belongs to
the earliest type (p. 52). A similar terminal may be seen on the
sheath of a short sword (fig. 48, no. 1) measuring nearly 22 in.,
from the same cemetery. At the mouth of the scabbard was
a bronze escutcheon (fig. 49) embossed with three human faces ;
and four bronze rings for attachment were also found with this
weapon.

Another warrior's grave contained objects of interest. At
the feet were three large vases, two of which had covers, and the
third was of a fine black ware, with angular outline, the shoulder
having an incised fret-pattern, and the neck two bands of bordered
chevrons. On the left of the head were three javelin-heads, and
along the right thigh the remains of what had perhaps been
a quiver. Another grave contained a man and woman, the former
with a curved iron knife and lance, the latter with a bronze

necklet and three brooches of early type placed respectively on each shoulder and behind the head. On each wrist was a bracelet and on the left hand a finger-ring, also of bronze.

Among the feminine ornaments recovered from this cemetery was a pair of white glass bracelets ; and from the undisturbed grave of a young girl come three vases of fine ware decorated in red, two oval bronze bracelets, a small brooch from each shoulder, a necklet of the ordinary form, and a pair of hollow gold ear-rings. The pottery vessels mentioned above, with several others of various forms and colours, fill the upper shelves of Cases 65–68 ; and from their ornament, as well as from the brooch-types found on the site, it may safely be inferred that the cemetery was closed before the middle period of La Tène commenced. Its richness and uniformity give us a standard by which to judge of the relative dates of the Marne cemeteries here represented.

Two or three burials were found in or near a grave-mound at Diarville, Meurthe-et-Moselle, in 1888. In one of them was a skeleton with a torc round the neck, and a wheel-shaped ornament behind the head, having originally belonged perhaps to a leather helmet : the same wheel appears at the side of helmets on certain Gaulish coins. In the same grave were found two bracelets on the arms, with an oval opening ; and near the right hand a small celt of jadeite, a pair of anklets completing the grave-furniture. Further excavations conducted by M. Morel brought to light another grave with a floor of stone slabs : the body, which had been placed with the head at the west end, lay beneath a layer of rough stones. At the feet was a vase of black ware about 3 in. high, decorated at the neck with incised frets ; and inside it was a bronze razor with two loops, in a mutilated condition. Another bronze razor was found at Diarville with the iron sword of Hallstatt type exhibited in Case P (p. 40).

The collection includes one or two pieces from the extensive cemetery excavated in 1878 at Charvais, in the commune of Heiltz-l'-Évèque. It is specially interesting as showing the earliest types of the Iron age in France, some of the objects recovered evidently dating from the Hallstatt period, though one brooch, doubtless from a higher level than the rest, must belong to the Gallo-Roman period. Over seventy graves were opened, and all but two or three were orientated with the head at the west end. Among the relics may be mentioned fourteen bronze brooches, usually in pairs, three iron brooches, twelve collars of bronze, some of which are hollow, and three of iron. Coral appeared on a collar and bracelet in the form of unshaped beads, while one ear-ring had large beads of amber on it resembling examples from the Ticino valley (Case O). There were seventeen bracelets of bronze, of which some were hollow like the collars,

others of thin embossed metal (fig. 54), and three iron specimens, while the anklets found were ten in number. Only two vases were recovered entire, but fragments of coarse ware were common in the graves, and one piece of fine black ware was discovered, probably of foreign manufacture. In one grave two solid bronze rings were found on the fore-arm of a skeleton, and the absence of any traces of fastening showed that the bracelets had been worn since childhood, the opening being only $2\frac{1}{4}$ in.

In the commune of Connantre, Marne, a group of interments was discovered, including that of a warrior buried as at Montfercaut, Marson, in panoply. The shield, of which the boss rested on the right upper-arm, seems to have been of oval shape and to have been covered with wood, leather, or wicker-work, with a metal edging where it would rest on the ground. The sword lay beside the right leg, and its chain was attached, but not passed round the waist. Beyond, but parallel to the sword, was
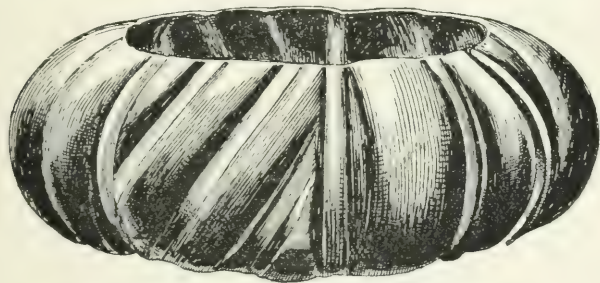


FIG. 54.—Embossed armlet, Heiltz-l'Évêque, Marne. $\frac{2}{5}$

a reversed spear (as at Montfercaut), the spiked ferrule being on a level with the shoulder. Two iron brooches of the early type, measuring $6\frac{3}{4}$ and $2\frac{3}{4}$ in., had been worn, and three iron clamps, the use of which is not clear, lay near the left foot. The cemetery further yielded a fine bronze collar with three lobes, each consisting of a ring with three balls on its circumference (fig. 51, no. 2), like one from Pleurs. A sword in poor condition retains traces of a coarse textile near the handle (Case P). Vases of various forms were found, and one of Roman appearance contained the bones of an infant. Several spindle-whorls of terra-cotta were also recovered.

Two distinct Gaulish burying-grounds have been discovered at Courtisols, a village on the river Vesle, Marne. One known as Les Grands Ayeux was situated near the river, west of the church of St. Memmie, and contained, among many tombs rifled in the past, two undisturbed interments of interest, examined by M. Morel in 1873. In one, the body had been laid with the head

at the east end of the grave, having on the left wrist a bronze bracelet, a plain collar of bronze on the neck, and a brooch (La Tène I) on the breast, ornamented with a small bead of glass-paste or coral. At the feet were two pottery vessels, one resembling in shape the bronze sepulchral urns of Etruria, the other like a porringer. The second burial was probably of a woman, and was richly furnished, the orientation being the same as the preceding. A fine bronze torc was on the neck, the fastening being at the back, and below the jaw lay a pair of brooches, of the same pattern as before, connected by a bronze chain, while a third was at the back of the neck. On each wrist was a bronze bracelet, and on the left hand a finger-ring of two coils. Five pottery vessels and a knife were found at the feet, the former containing bones of the pig and sheep. One of the vessels has a graceful form resembling specimens from Somsois and Montfercaut (Marson), and another was provided with a cover.

A third woman's grave contained a torc without an opening, which had been placed, not on the neck, but as a diadem on the head. A curious bronze *étui*, like one from Martroys (Aisne), was found with five blue glass beads which had evidently been attached to it, there being five holes for the purpose. A very fine metallic point was found within the bronze socket. Two bracelets and a pair of brooches (La Tène I) were found in position ; and a large vase with fragments of two others lay at the feet. About thirty interments were examined in all at different times, but more than half contained nothing of importance. A strip of iron, 34 in. long, found beside the skeleton of a man, may be part of a scabbard, the other face having no doubt been of wood or leather and fastened by means of the hooks remaining on the edges of the iron.

Another site at Courtisols, called 'les Closeaux de la Conche' has yielded about thirty isolated burials, not arranged in any particular order, and sometimes as much as 50 yards apart, as at Marson, about 6 miles from the site. More than half these interments had been already disturbed, but several relics of archaeological value were obtained by M. Morel. A man of larger stature had been buried with an iron brooch on the left shoulder, and a pair of iron shears on the right side ; while behind the head of another were found shears and an iron razor, both of which had been enclosed in one case of wood or leather. In one large square grave two skeletons were found, one placed across the other : with the lower was a sword in its iron scabbard, a knife beside it, and a black-ware vase at the feet. In the grave of a woman was a bronze bracelet of large proportions which had been cast hollow and filled with some white substance : there were also twelve bronze rings of various sizes, and a catch, possibly used together as a belt, or to loop up the dress at various

points ; and in another woman's grave here a dozen similar rings were found, with a catch that could hold several at one time (as at Pleurs).

This cemetery is remarkable for the fine torcs recovered from certain graves. One has three triple raised bands on either side of the large buffer-shaped terminals, and another has ornament in relief at the terminals and also in front (as worn on the neck), consisting of the human face and graceful scroll-work. A very similar example was found in a grave at Avon-Fontenay, in the adjoining department of Aube, and a third is known from Aulnizeux, Marne.

To the north of the village of Prosnes, on the right of the road to Moronvillers, about sixty interments were found in a flat area at the base of a hill. Several fine urns were recovered and among them were cordoned examples resembling those of Somme Bionne, the brooches being also of the early La Tène type. One large vase had lost its moulded neck before deposit in the grave, but its shoulder bears a remarkable but rudely executed design between two pairs of incised lines, the upper pair being irregularly drawn. Two iron spear-heads, two short swords in scabbards, knives, and personal ornaments are included, as well as amber-beads and shells pierced for use as pendants. It should be observed that brooches from this cemetery closely correspond to the Dux type (fig. 36), which is taken as the standard for La Tène I period.

The greater part of the relics from the Gaulish burials at Bussy-le-Château are preserved in the French Museum of National Antiquities, but no details are recorded of the excavations, which extended over several years. M. Morel acquired a representative series, including a small brooch (La Tène I) with chain, and a ring at the other end instead of a corresponding brooch : also an ear-ring of bronze from the same grave, but resembling in form those of gold from Marson. A hollow ring of bronze, of which several are included in the collection, is thought to have been used to ventilate the helmet of a warrior ; while iron rings of somewhat similar shape seem to have belonged to the sword-belt. Iron spear-heads and knives, and bronze torcs and ornamented bracelets, besides a number of plain and orna-mented vessels of pottery, complete the series from this site, except for an iron sword with its scabbard (fig. 48, no. 2), decorated by means of three bronze bands embossed with scrolls of S form ; and two daggers, one with a natural horn handle, the other with a cross-bar pommel and a bronze sheath, the chape of the last being of fish-tail form (as fig. 31).

The first discovery at Pleurs, Marne, was made in 1851, about one mile south-east of the village, but it was not till eighteen years later that excavations on the same spot were conducted by M.

Morel. A circular trench was discovered, over a yard wide and
13 yards in diameter, recalling that at Somme Bionne ; and in
the centre was a deep fire-place, filled up with black earth and
burnt human bones, but it is doubtful if this had served as an
*ustrinum*, or place for cremating the dead (p. 120). In addition
to the earliest find, which consisted of a remarkable torc and two
brooches from a burial, five other interments were met with in
the enclosed area. To the east was part of another circular
trench with burials at the circumference, and to the west a group
of six interments that may have been enclosed. Within the
complete trench the area was apparently divided into two parts,
one half being assigned to the chief or other distinguished person
(with the finest bronze collar), the other being shared by six
adults in five graves, three of which were placed symmetrically
with reference to the fire-place in the centre of the ring, the feet
in these cases being at the east end of the grave. In the double
grave near the trench lay a man and woman side by side, the
latter without ornament, and the former with a bronze finger-ring
on the left hand, an iron brooch on the breast, and a bronze toe-
ring on the left foot. Another toe-ring, but of iron, was found in
the same cemetery, and in the western group two bronze rings
were found in position on the ankles of a skeleton. The absence
of weapons was a noticeable feature of this cemetery, though
a two-edged sword was found in one of the isolated graves on the
way to Angluzelles. Other objects of interest are, however,
illustrated by M. Morel, and include a bronze catch on which
were found several rings of the same metal. Similar clasps are
known from other cemeteries of Gaul, and it has been supposed,
with some reason, that the rings were attached to the clothing
in a vertical line, and were hooked on to the catch as occasion re-
quired, thus giving freedom of movement. A good example of an
iron brooch (La Tène I), $6\frac{1}{2}$ in. long, occurred here, but special
attention must be drawn to two brooches ornamented with coral
attached by bronze rivets to the bow (figs. 55, 56). These brooches
differ in form but must be approximately contemporary, though
the longer one suggests the late La Tène period (p. 44). Both are
of special interest as presenting certain points of resemblance to
specimens from Yorkshire, which have plates of coral (or shell)
attached by central rivets, and a rosette on the end of the up-
turned foot. A bracelet is noticeable for a mode of fastening
known in Britain (fig. 88) and also employed on collars from this
cemetery and on one from north-east France in Case 77 : the loose
end is furnished with a tenon that is kept in a corresponding
mortise by the elasticity of the ring. The open-work projections
on two collars (fig. 51, no. 3) are not unusual and have been
already referred to (p. 56).

Two sites quite close to one another have been excavated near

Bergères-les-Vertus, Marne. On the western slope of Cormont, at a place called Montaignesson, about $2\frac{1}{2}$ miles from Vertus, a large cemetery was discovered in 1845, and several graves were found to have contained more than one body, but the bones were in great disorder and may have been previously disturbed. On the other side of the hill, at a spot called Les Croncs (circles), nearly eighty graves came to light, some of which contained two, three, and even four burials one above the other. Altogether thirty-one torcs were recovered, forty-five urns, thirty-five lance-heads of iron, seventy-five bronze bracelets, eleven swords of iron in scabbards of the same metal, with a uniform length of $28\frac{1}{2}$ in., twenty-five brooches and a number of beads of amber, glass, and jade. In one grave had been buried a man and woman face to face, with their wrists united by a bronze ring which had been fastened at the time of burial. The relics that passed into the hands of M. Morel comprise a fine torc, properly so called, with
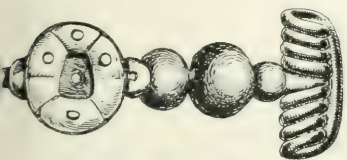


FIG. 55.—Brooch with coral, Pleurs, Marne. ($\frac{2}{3}$)

FIG. 56.—Brooch with coral, Pleurs. ($\frac{2}{3}$)

a quatrefoil fastening like one found at Étréchy: two collars that had been repaired somewhat clumsily, and two interesting amulets consisting of a pierced shell and tooth on bronze wire, such as were found in the burial pits of Tours-sur-Marne : also, a disc of human skull, like that noticed from Somme Bionne (fig. 52), with three perforations and marks of the bronze wire attachment.

After this survey of the chief Gaulish cemeteries represented in the Morel Collection, a few general remarks on the pottery will not be out of place. Where localities are not stated, it must be understood that the vases probably came from the Marne district, and belong to the early or middle period of La Tène culture. Some pieces may well belong to the fifth century, when classical models were somewhat closely followed, and there will be no difficulty in recognizing the Greek fret in a simplified form painted on the Marson bowl (pl. IV, no. 1) and the urn from Mesnil-les-Hurlus (no. 10). Painted decoration, in the form of

chevrons, may also be distinguished on a red-ware vase from
Marson (no. 9). This is a poor specimen of irregular profile,
probably derived from the pear-shaped form with pedestal common
at Somme Bionne (no. 13) and at Aylesford (fig. 101, nos. 8–13).
The pedestalled urn constitutes a definite type, and is characterized
by cordons or bands in relief above the shoulder and round the
foot, the latter being hollow (fig. 57) as in several examples from
Essex (p. 122). The type is in reality derived from a tall urn, like
no. 12 (Mesnil-les-Hurlus), with angular or carinated shoulder
recalling a prototype in metal. Such sharp profiles occur in the
Marson series, on vases (no. 7) with incised panels at intervals
and bands of sunk lines filled with red pigment. Red lines are
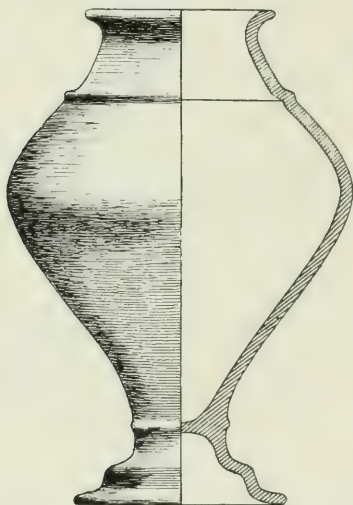


Fig. 57.—Pedestal urn and section,
Somme Bionne. (¼)

also found on drinking cups, as
from Mesnil (no. 2), Lacroix
(no. 3) and Marson. Vessels
decorated in this way are gene-
rally of thin well-baked black-
ware, that seems to be an
imitation of contemporary
Etruscan *bucchero* ware ; but
the more usual ware is thicker,
with burnished surface, ranging
in colour between black and
light brown. Somewhat elabo-
rate forms are found, as, for
instance, bowls on a more or
less developed foot (no. 4, Som-
sois) ; but generally the profiles
are more convenient for the
potter (no. 6, Rheims), and wide-
mouthed urns with or without
a cover (no. 5, Bergères-les-
Vertus) are frequently found in
the graves. The decoration is
sometimes of the finger-nail

order (no. 8, Marson), but more often executed with a point, either
by stabbing, or tracing chevrons and other simple patterns. Comb-
markings are not uncommon, and a lustrous black line for linear
design is secured in several cases by drawing a blunt burnishing
point across the clay before firing : a good example is the pear-
shaped cinerary urn from St. Remy-sur-Bussy (no. 11), derived
from the pedestal urn but without the hollow foot, and probably
among the latest pieces in the Morel Collection (p. 73).

A fine pedestalled urn (fig. 58, no. 2) with another form of
painted decoration is shown in Case 75. The ware is reddish,
and the body is covered with scrolls of Late-Keltic style, executed
in a brown pigment. Adjoining it is a vase (no. 3) from the same

PLATE IV. GAULISH POTTERY FROM THE MOREL COLLECTION ($\frac{1}{3}$).

department, of buff ware, with red scrolls resembling in form the incised ornamentation of some British specimens (fig. 108). The third painted vessel of this class illustrated is also from Beine (no. 1), with a buff rosette on two sides and a broad red band round the neck and foot.

According to M. Déchelette, the painted pottery displaying the curved or spiral forms characteristic of La Tène art, is found all over France (except in Armorica and the south-east provinces), on the Rhine, and in the west of Switzerland. It is also known from the isolated Hradischt (*oppidum*) of Stradonic in Bohemia. This class of ware with painted decoration, like the vases in Case 75 from Prunay and Beine, must be distinguished from that with incised decoration. They may have developed concurrently, and were derived from a common source, but belong to different



Beine.                    Prunay.                    Beine.
Fig. 58.—Painted pottery, Dépt. Marne.  (¼)

areas—the incised examples occurring in Armorica and Great Britain, just where the painted ware is wanting. Closely connected in style with two complete vases from Dépt. Finistère are certain fragments found in this country, with incised ornament, such as those from Oxfordshire (fig. 137) and Devonshire (fig. 136). The bowl from the Glastonbury lake-village, of which a wooden model is shown, also belongs to the same style of workmanship, and it is a remarkable fact that both at Glastonbury (fig. 108) and in Finistère examples have been found ornamented on the base, as well as on the body. The shape of the mouth and the quality of the ware are also similar in the two areas, and the Armorican specimens can therefore be assigned, with little hesitation, to the first century B.C. The painted pottery, on the other hand, dates from a somewhat earlier period, the area in

which it is found being then more accessible to the civilization of the south. M. Déchelette suggests that, while the decorative medium was no doubt adopted from the Greek and Etruscan wares common in central Europe (as at Somme Bionne) during the fifth and fourth centuries B. C., the decorative patterns and the forms of the pottery were independently evolved by the potters of ancient Gaul.

Adjoining the painted pottery are casts of two Gaulish helmets and a bronze original which must be briefly noticed here. They were all found in Dépt. Marne, and those represented by casts are approximately of the same date, which can be fixed, inasmuch as the chariot-burial of La Gorge Meillet, in which one was found, must
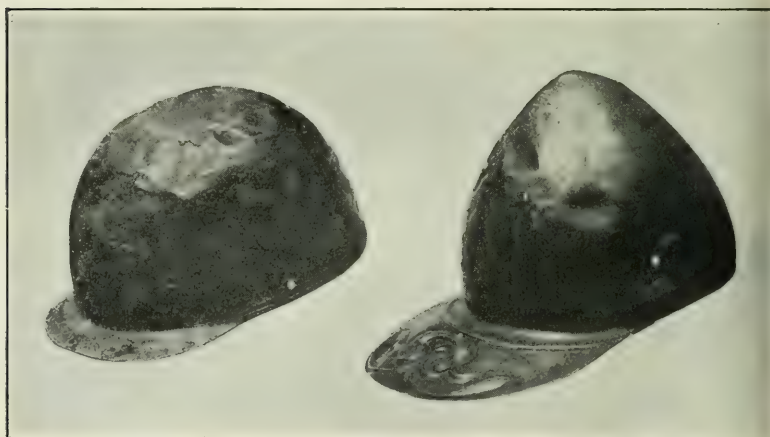


Fig. 59.—Bronze helmets, Coolus (Marne) and England. (⅓)

be contemporary with that of Somme Bionne (p. 49). This speci-men has studs of coral set in bronze discs and a broad band of engraved ornament round the lower part. The pattern is a modification of the Greek fret, executed in wavy lines, and is to be met with on some pottery of the period; while that on the Berru helmet shows the transformation of the palmette in Keltic hands, and should be viewed in connexion with the Waldalgesheim find (p. 19). In the seventh and earlier centuries B.C. such helmets were common in Assyria; and one from Van, Kurdistan, is exhibited in the *Babylonian and Assyrian Room*.

The bronze helmet from Coolus (fig. 59) is altogether of a different type, and must be referred to a somewhat later date, perhaps the second century B. C. There has been no knob affixed

to the top, and in form it roughly resembles a jockey-cap. The projection, which is ornamented with chevrons of punched dots, is more probably a neck-guard (as on Roman specimens in *Central Saloon*) than a peak, and a very similar helmet is known from Breuvannes (Haute Marne): both are evidently of Gaulish origin.

The period La Tène II, which includes most of the Iron-age antiquities found at La Tène itself, extends from about the death of Alexander the Great (323 B. C.) to the invasions of the Cimbri and Teutones which were checked or diverted by the exploits of Marius and Catulus in the closing years of the second century, B. C. This is the middle La Tène period of Tischler (Reinecke's La Tène *C*), and intervenes between the periods of classical Greek and of Roman influence, the latter being due to the extension of Italian supremacy north of the Alps. It is itself characterized by certain Hellenistic features,



Montfercaut, Marne.          Corroy, Marne.          Connantre, Marne.          Campagnac,
                                                                                Uzès, Gard.

St. Étienne au-Temple, Marne.
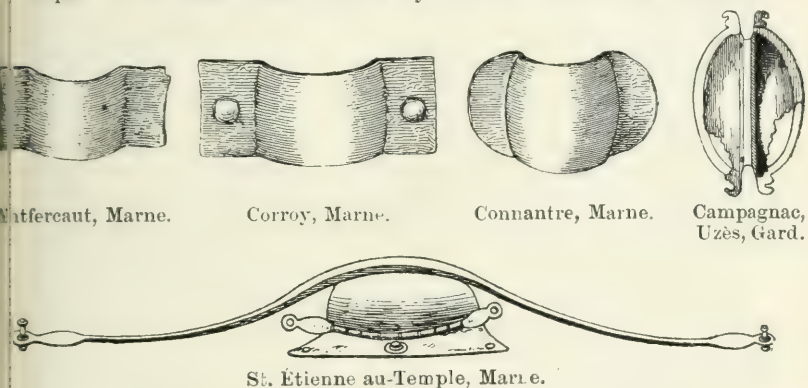
FIG. 60 —Development of Gaulish shield-boss. (⅛)

as the result of contact with the Balkan peoples, but graves of the period are scarce and poorly furnished, and the evidence derived from such remains as the Pergamum marbles is to some extent vitiated by the artistic licence of the sculptor. The famous monument set up by King Attalus of Pergamum on the Acropolis of Athens to celebrate his defeat of the Gauls in 240 B. C., gave a free rendering of the dress, arms, and appearance of the Keltic warriors at this time ; and the statue of the 'Dying Gaul' in the Capitol at Rome belongs to a type that took its rise in these circumstances, though the modern restoration of the statue is misleading. The shield generally represented in such works of art is a long oval or rather an irregular polygon (*see* statuettes in *Bronze Room*), having in the centre a transverse band of iron, consisting of a half cylinder to protect the grip, and a wing on either side fastened to the

wood or leather of the shield (fig. 60). From top to bottom
there also ran a thin metal brace to give additional strength, and
this seems to have been continuous with the boss when the
latter assumed a pointed oval form (p. 93). The iron spear-heads
were sometimes relatively broad, and at La Tène itself often had
sinuous outlines (Case 77), while the conical or pyramidal ferrule
is fairly common at this stage (see one from Connantre).

The swords are either short as before, with pronounced chapes,
or long swords with pointed chapes, while the heavy bronze
sword-chain mentioned by Diodorus is often found (as at Somsois
and Rheims). Chariots and horse-furniture are, on the other
hand, rather unexpectedly absent from the graves. Elaborate
girdle-chains of peculiar form seem to be confined to this period,
and armlets of glass and lignite (or Kimmeridge shale) are in-
cluded among personal ornaments. Armlets of bronze and iron
are also common, consisting of one to two coils, and the knobbed
examples of the preceding period are replaced by hollow armlets
with nut-shaped lobes, fastened by a hinge. Torcs or collars are
barely represented, but the usual buffer type seems to have soon
gone completely out of fashion.

The most important class of ornaments has yet to be noticed.
The study of types has rendered it almost certain that the early
brooches of the Keltic world (La Tène I) passed through various
stages before the Roman provincial type, with its many deriva-
tives, was evolved. The stage known as middle La Tène is
marked by the attachment of the returned foot to the bow by
means of one or more metal bands or collars which subsequently
become merely ornamental features. It is only natural to class
specimens that have the bow and foot distinct but actually
fastened by the collar (fig. 38), as nearest the prototype, in
which the two parts were not in contact. Something has been
said above as to the history of the brooch during the Early Iron
age, so that it is only necessary here to refer to specimens from
La Tène itself (Case 77) and the few included in the Morel
Collection. One found on the site of the Royal Exchange, London,
may be cited in illustration (fig. 81).

Pottery and metal vessels are almost unknown on sites belong-
ing to this period, but some light is thrown on the relations
between the Keltic and Mediterranean peoples at this time by
the coins that now appear in the graves, though they do not
become plentiful till the last stage of La Tène civilization.
In some parts the coins are clearly derived from early classical
models, those copied from the Philippus (p. 151) being compara-
tively close to the original, while some struck at Marseilles are
more frankly barbarian.

The Keltic area at this period extends eastward, even beyond
the Carpathians, but seems to exclude eastern Italy, while North

Germany becomes productive. Large cemeteries were used, and unburnt burials preponderate, though cremation makes its appearance on the Rhine, no doubt in connexion with the southern advance of the Teutons. There is a strange scarcity of corresponding remains in southern France and the Pyrenees, as well as in South Tyrol and South Switzerland. Upper Italy is in some respects productive, but the important cemeteries in the Ticino Valley are mostly of earlier date (p. 44). Archaic types do indeed occur, as in Carinthia (where cremation appears), Croatia, and Bosnia, but appear to be mere survivals, and are not held to establish a middle La Tène period in these regions.

It has been already pointed out that the bulk of the Morel Collection of Gaulish antiquities belongs to the early period of the La Tène civilization, and special attention should therefore be drawn to the remains from a cemetery which well represent the succeeding period, when the brooch had the end of the returned foot attached to the bow (p. 43). Those in bronze are of the average size, but some examples in iron attain exceptional proportions, one measuring 9 in. in length.

In 1863 a Gaulish cemetery was discovered on the road between Somsois and Champaubert, not half a mile from the former village. The interments had been made on the slope of a hill, close to an ancient road, and extended over an area of about 300 square yards. Above the bodies was a layer of black earth, 8 to 12 in. thick, surmounted by a compact layer of chalk, 2 ft. thick, below the soil. On this site no uniformity was observed in the orientation, the graves being cut in several directions. The bodies had been buried at full length, and lay on the back with the arms by the sides, the legs being crossed in two exceptional cases. It was noticed that in about a third of the total number of graves, one or two sherds of pottery had been intentionally included. In the grave of a warrior was a sword bent at a sharp angle, as well as the chain which served as a sword-belt, also a shield boss of the usual form. The shield itself seems to have been made of wood, with metal edging, and apparently had an oblong form. In what was evidently a woman's grave were found two jet rings, one on the right-upper arm, the other on the wrist, while on either ankle was an ornamental ring of bronze. Elsewhere another armlet was found in position on the upper arm, with an opening of $2\frac{3}{4}$ in. Another grave contained the remains of a young girl, with two bronze brooches of the middle La Tène type lying close to one another on the breast. A fine bowl-shaped vase of black ware was lying between the left arm and body in another grave, which contained also a necklace of blue glass and amber beads, a bronze bracelet on the left wrist, and an iron goblet of which the exact shape could not be determined. The richest grave yielded, in addition to a bracelet on the left

wrist, and a pair of anklets, a fine bronze sword-chain or baldric of thirty-six triple links, lying in a heap at the left thigh, some amber beads near the throat, two bronze brooches of middle La Tène type, and a fine bronze collar on the neck.

At a spot known as Pont de l'Isle, between Corroy and Gourgançon, six burials were found close together, and two warriors placed together in the central grave in opposite directions. On the left arm of a woman was a bronze ring, one of glass on the wrist and two iron brooches on the breast. The massive armlet of jet or shale was from another grave. In this cemetery were also found examples of the very long and ill-balanced iron sword usually associated with the station of La Tène; one is exhibited in Case P (plate vi, no. 5), but no record exists of any objects found in association with it. Some fragments of the iron scabbard still remain on the blade, and the mounts show a close resemblance to a British specimen from the Thames (plate vi, no. 4).

The collection includes two brooches from a cemetery at Wargemoulin (Marne), but it is quite uncertain whether they were taken from the same grave. One is of the middle La Tène type, common enough in certain districts of Central Europe but rare in Marne, and its occurrence here suggests a comparatively late date for the other brooch, which is of a remarkable character. It is ornamented with pellets of coral in two bands, the inner fixed by bronze pins projecting from the solid central disc, the outer by pins radiating from the edge. The central boss is surmounted by a solitary pellet, and the bronze groundwork is covered with embossed gold foil. Part of a simpler brooch, on the same principle, is exhibited beside it.

In 1890 five Gaulish burials were discovered at Mesnil-les-Hurlus, Dépt. Marne, one being of exceptional interest. A woman had been buried with a torc, two bracelets, two brooches, all of bronze, two pottery vases and a gold ring. The torc is of the usual buffer-type but the ornamentation is uncommon, consisting of S-scrolls in relief (p. 54): the bracelets are closed, with geometric designs incised on the outside; and the brooches are of usual types, one having a coral stud set in the returning foot. Of the vases, one is of 'carinated' form, evidently copied from a metal original and made of fine black paste resembling that of Greek vases: the other is of imposing dimensions, and is decorated above the shoulder with incised frets and two bands of chevrons. The gold finger-ring is quite plain, and belongs to a very small group of ornaments from the Marne cemeteries. Ear-rings of the same metal were found at Marson, and a finger-ring in the chariot-burial at Somme Bionne, while gold on the Wargemoulin brooches has been noticed. Though more than fifty chariot-burials have been brought to light in the department of the Marne, only about thirty-five were found intact.

and it is probable that any articles of gold were abstracted by those who were first on the scene, possibly the Frankish invaders.

Among other finds in this cemetery may be mentioned a bronze torc to which are attached as pendants two beads of blue glass, the rounded end of an ox-bone, and a piece of iron pyrites ; while a woman's grave contained part of an open-work bronze horse-trapping of the same character as three in the chariot-burial at Somme Bionne (plate III).

The Gaulish antiquities hitherto considered have been practically confined to a compact area in the north-east of France, between Paris and Lorraine ; and certain discoveries in the south must now be noticed. None of the burials excavated or investigated by M. J. de Saint-Venant in the country of the lower Rhone, revealed any trace of inhumation ; several, on the other hand, had evidently been after cremation, and all obviously belonged to the same series. The principal type of grave-mound consisted of unhewn stones heaped together, enclosing a rude cist of rough slabs at the centre. In several cases urns of the amphora pattern were found, sometimes broken at the neck to widen the opening. Cinerary urns of this type have also been found in Dépt. Aisne, as at St. Audebert (p. 28). These southern burials were rich in iron weapons, many having evidently passed through a fierce fire. The swords were inordinately long (average about $33\frac{1}{2}$ in.), bent intentionally before being added to the pyre (p. 77), and had blunt points, being used only as cutting weapons. An ogee guard on the tang corresponded to the outline of the scabbard-mouth, and the chape followed the form of the sword-point, and was strengthened with cross-bar and studs, not unlike one from the Thames (plate VI, no. 4). The large iron shield-bosses were mostly of an earlier pattern, like those from Marson and Corroy in the Morel Collection, though the sides of the arch are no longer parallel but convex ; and one example is of oval plan, with prominent ridge from end to end, in the line of the middle rib of the shield (fig. 60). The Grimthorpe shield in Case 55 is perhaps a later example of the same type.

There were no torcs in the series, and only one brooch, which belonged to La Tène II. Ornaments here give place to arms, and emphasize the difference between these and the Marne burials. As the Morel Collection shows, ornaments formed by far the most prominent feature of the graves, and arms were rare except in chariot-burials, which are unknown in the south.

As the Rhone country was most exposed to Roman influence and no typically Roman objects are found in these graves, they may be assigned to the second century B.C. : they thus succeed, with hardly any overlap, the Marne cemeteries, in which cremation is a very rare exception, and furnish an approximate date for the change from inhumation to cremation in Gaul.

Special importance attaches to the burnt burial discovered at St. Remy-sur-Bussy, Marne (Case 73). Another has been found at Vitry-le-François in the same department, but this method of burial was undoubtedly but seldom practised in the middle La Tène period. The cinerary urn (plate IV, no. 11) was 11 in. high and was buried in black soil over 3 ft. deep. It is of fine polished black ware, and was sealed with a pottery cover. Within were burnt bones, evidently of a woman, with the fused remains of a glass bracelet and the spiral iron spring of a brooch belonging to a usual type.

Another burial after cremation has been discovered in the same district at Cernon-sur-Coole, where a cinerary urn $16\frac{1}{2}$ in. high was placed in a circular cist, with a sword about 29 in. long, iron sword-chain and lance-head. The sword has already been referred to for its chape (p. 53), but a special feature is the scroll work on the scabbard in the style of the Thielle spear-head (fig. 17), surmounted by a loop and curved scabbard-mouth. The burial may be referred to the close of the middle period of La Tène.

The foundation of the Roman province of Narbonensis (B. C. 121) in southern Gaul marks the beginning of a new era for the Keltic population ; while extensive operations in Transalpine Gaul four years before showed the determination of Rome to safeguard her frontiers and extend her power. At the same time tribal movements in southern Germany constituted a grave danger to the Republic ; and the Cimbri and Teutones, with other kindred tribes, almost anticipated the conquest of Rome by barbarians five centuries later. The last period (D) of the La Tène civilization corresponds to the closing century of the Roman republic, and is marked by striking changes, archaic survivals being far outnumbered by complete innovations. Late La Tène antiquities are found, and were no doubt also produced, both in border districts already Romanized and in areas as yet unapproached by Roman arms. Here, then, are the forerunners of Roman provincial art, which had far-reaching effects on the culture of northern Europe : and it is at times difficult to distinguish the republican and imperial periods in provincial handiwork.

The typical sword of this period is long and double-edged, not tapering, but with a rounded end not adapted for thrusting. The chape is little more than a thickened binding of the scabbard, the latter being strengthened by several cross-bars of metal at intervals on both faces (plate VI, no. 4). Roman influence is, however, seen on some sites in short swords recalling the *gladius* of the legionary. Spear-heads are as a rule, perhaps, larger than before, and the shield-bosses are more oval in form (fig. 60) or have wings of another and less massive kind. Horse-harness is now more plentiful, and remains of two-wheeled chariots have been found, though rarely in graves. A notable

feature of this period is the spur, which now first makes its
appearance and is no doubt of barbarian origin.   The large
quantity of tools for agriculture or domestic use is due to the
discovery of such prolific sites as Bibracte (Mont Beuvray),
La Tène itself, the Hradischt (stronghold) of Stradonic (20 miles
south-east of Prague) and Gurina (in the upper valley of the
Gail, Carinthia).   A few specimens of this kind from La Tène
are shown in Case 77 (p. 77).

The pottery is very mixed, but special mention should be made
of the painted wares which appear in north and central France,
North Switzerland and the Ticino valley, on the Rhine, at
Stradonic and Hallstatt and in Bosnia.   The colouring is usually
red and yellow, while the design is for the most part geometrical,
with certain degenerate floral forms.   Some of the best examples
extant are exhibited in Case 75, and the relations between painted
and incised wares of this period have already been discussed (p. 67).

The characteristic brooch of this period derives its alternative
name from Nauheim (in the Wetterau, 18 miles north of Frank-
furt-on-Main), but survivals of earlier patterns are far from un-
common.   Rings for the neck, arm, and finger are not so numerous
as before, but armlets are found of iron, hollow bronze, and
coloured glass, while on nearly every ornamental object appear
the coloured enamels that give a peculiar stamp to the closing
century of the culture of La Tène (p. 87).   On the other hand,
toilet articles appear in greater abundance, and include needle-
cases (p. 62) mounted with bronze rings of a type already known ;
also mirrors which were new to the west of Europe, iron shears,
tweezers, and razors.   Coins, too, now become numerous and
important, nearly every site yielding a quantity, but very few
being found in graves.

The area in which late La Tène finds occur is bounded on the
south by upper Italy and Illyria, but the eastern limit is still
undefined, while all the Keltic districts of the west have proved
productive.   Cremation is the rule north of the Alps, and burials
of this kind are common in North France, but more especially on
the Rhine and lower Main.   There is, however, some doubt as to
the method adopted in other areas, such as the upper Main and
Danube ; and the true significance of this radical change in funeral
customs has still to be decided (p. 84).   It is conceivably due to
the Teutonic tribes who migrated southward about this time, and
it is at least significant that North Germany yields remains of this
period.   One province seems to include part of Hanover, the
Altmark, and Saxony, where a characteristic ceramic type is the
black bucket-shaped urn.   Another province lies further to the east,
extending to the lower Oder and Vistula ; while the Baltic country
is best classed with Scandinavia.

At this stage the whole Alpine district seems to have still

retained models dating not only from the earlier stages of La Tène, but also from the Hallstatt and late Bronze periods. In the Pyrenees, Western Alps, South Switzerland, South Tyrol, and the Illyrian area (p. 44) are to be found antiquities that, apart from others that clearly date from the close of the La Tène period, might well be assigned to the fourth or even fifth century B. C. The same may be said of Dacia, north of the lower Danube, and it would not, therefore, be surprising to find the same phenomenon in this country, where early types exist without any decisive evidence of date (p. 98). One explanation suggested is that booty consisting largely of works of art from Italy and Greece was carried off by the Keltic invaders and deposited in their own temples where it would incidentally furnish models for the native crafts- men. The sack of Delphi in 279 B. C. would, no doubt, enable the Kelts to furnish their shrines to advantage, but this historic event should have affected rather the artistic output of the preceding period (La Tène II).

The necropolis of Jezerine may be briefly described here to illustrate the survival of earlier types. It is situated about 4 miles east of Bihać, a town in the north-west angle of Bosnia, and has been fully reported on by M. Radimsky, who directed the principal excavations there in 1892. About 550 graves were discovered, scattered irregularly over an area measuring about 200 ft. by 110 ft., and of these 60 per cent. were of burnt remains, protected by urns or stones, the rest being simple inhumations. At various points were discovered traces of funeral pyres, and in only a few cases had the body been burnt on the site of the grave ; while the uncremated bodies had been placed in an extended position on the back, with the arms along the sides, three-quarters of the number being north and south, with the head at the north end. The two kinds of interment were thoroughly intermingled on this site, and about the same propor- tion of both contained grave-furniture of some kind, while some objects were found apart from any interment. Among the iron articles, collected from sixty six graves, may be mentioned swords, knives, spurs, brooches, and armlets, but most of the ornaments were of bronze, occurring in over 330 graves. Silver brooches, chains, and rings appeared in some numbers, while glass and amber were both particularly well represented. The typical La Tène sword was wanting, but brooches of the three types appeared, especially La Tène II ; and in addition Hallstatt and Roman specimens were found.

M. Radimsky's table shows that inhumation was practised almost exclusively in the earliest period of the cemetery at Jezerine, about 85 per cent. of the graves with brooches of Hall- statt type containing skeletons. During the La Tène period the proportion of inhumations dropped to 40 per cent., while in the

Roman period nearly 93 per cent. of the graves contained cremated remains. About 75 per cent. of the skeletons were found with the head at the north end of the grave, and though the graves of the Hallstatt period on this site were more irregular, the large majority also of these had the head placed at the north end. The many variations from this direction do not seem to have depended on the sex or rank of the deceased.

A small but representative series from France and Switzerland in Cases 77, 78 supplements the Morel Collection, and constitutes a link between the early Gaulish civilization and that of pre-Roman Britain, generally known as Late-Keltic. Remains from the famous station of La Tène, which was situated in the shallows at the north end of the Lake of Neuchâtel, near Marin, may be taken as belonging to La Tène II period, though finds of a later date are known from the site. Iron weapons and implements, including the sickle, socketed celt (fig. 66), spear-head with wavy outline, and the brooch (fig. 38), characteristic of the middle period, are here exhibited, while in the lower part of Case 77 are casts of a few of the more remarkable swords, which have an ogee-curve and engraved or embossed designs at the mouth of the scabbard. Of special importance from the British point of view is the specimen with three animals embossed, similar in style to those on the buckets from Aylesford (fig. 93) and Marlborough (fig. 25), and on the disc from Westhall (fig. 110).

Relics from the Helvetian battlefield at Tiefenau, Berne, include swords and spear-heads, tapering bars of iron, of which the use is not clear, part of a bridle-bit and several iron rings from the wheels of chariots. Among other objects found were fragments of chain-mail, horse bones, pottery fragments, and a number of coins from Marseilles and the Keltic area (p. 150). All were buried in confusion, 2 or 3 ft. deep, and bore traces of fire, while the sword-blades had evidently been bent intentionally. The discovery was made in 1849, and published by Baron de Bonstetten, whose illustrations show brooches of La Tène II type, and swords with curved guards corresponding to the scabbard-mouth, below which are an escutcheon (as fig. 48, no. 1), and engraving as at La Tène itself.

Some of the ornaments on the main shelf have been already mentioned (figs. 14, 36, 39); and something must now be said as to the remarkable short swords, with bronze handles, of the 'anthropoid' type, exhibited here and in Case P. There can be little doubt that they are derived from Hallstatt examples with branching terminals (fig. 32), but their absolute date is not at present quite certain. It is, however, clear that the human head (from which the type is named) in the angle of the pommel grew out of the knob which occurs in that position at Hallstatt, and on what must be the earlier swords of this character, as that from Solmona (fig. 61, no. 2). Of the other two illustrated, one (no. 1) has

the human features very clearly marked. It is from a burial dis-
covered in 1873 at Salon (Aube), but the iron sheath in which it was
found has perished. The handle is not of solid bronze, but has
an iron core, which can be seen at certain points : this method
of coating iron is also seen on the Aylesford bucket-handle
(p. 116). The face on the other (no. 3) is almost obliterated by use,
and the moulding of the grip is a more important element in the



decoration. In this respect it
agrees with a fine example
recently discovered at North
Grimston, East Riding of
Yorkshire, but the head is
placed more as in the speci-
men from France. Two
daggers may here be men-
tioned as showing the adop-
tion of this model in Britain ;
one, measuring in its sheath
15 inches, is published from
the River Witham, and has,
instead of a human head, an
imp-like figure in the branch-
ing pommel, and mouldings
on the grip ; the other, from
Southwark (London), is now
in the Guildhall Museum, and
is a very plain specimen with
projecting head, the total
length being nearly 14 inches.

The Solmona specimen, the
only one found south of the
Alps, has led M. Salomon
Reinach to date the whole
series later than 200 B. C.
The province of Aquila was
founded in 181 B. C., after the
Transalpine Gauls had made
two attempts to settle in the
district, which, till their
arrival in 186, they declared

Salon,    Solmona,   Locality
Aube.     Aquila.    unknown.
FIG. 61.—'Anthropoid' short-swords. ($\frac{1}{6}$)

to have been almost uninhabited. Those with a plain knob he there-
fore refers to La Tène II period, while those with human heads are
probably of La Tène III. Though specimens of both kinds have
been found in France and Switzerland, and two late examples in
Germany and Hungary, none seems to have been found in the
numerous burials of Champagne, and their comparatively late
date is attested by fragments from Bibracte and Stradonic.

Next to nothing is known about Spain in the Early Iron age, but one form of brooch appears to be confined to that country. It consists of an expanding bow sometimes approaching the Hallstatt kettle-drum form (fig. 28, no. 7), with a pin attached to the head by means of a ring which also passes through the foot ; and a simple hinge is formed by turning up, on either side of the head, the broadened extremity of the pin (fig. 62). The date and origin of this type is hard to deter-mine, but the hinge, instead of a spiral spring, is a feature that elsewhere in Europe would point to early imperial times. One speci-men, of which the fastening is not clearly delineated, was found in
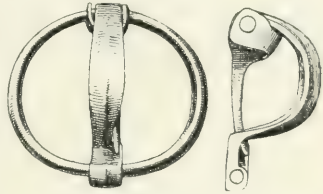


Fig. 62.—Ring-brooch, Despeña Perros, Castile. (½)

association with coins of Greek colonies of the Mediterranean at Denia (on the east coast of Spain in Valencia), where there was a Phocaean colony from Massilia. If the brooch is really con-temporary, it must date at least from 400–350 B. c. On the other hand, specimens of the same general form have been found in Spain with purely Roman objects, and the type may have con-tinued till the early Empire. The two speci-mens here exhibited (Case 77) were found with a large number of the same pattern in the vicinity of what was undoubtedly a shrine, near the pass over the Sierra Morena at Despeña Perros ; and their fragile character supports the view that these were votive offer-ings made for, and offered at, a shrine at this spot by the native miners. The sacred character of the site, which may have been a cave, now filled up with débris, is also indicated by the discovery of several bronze statuettes, of which two examples are shown (fig. 63), and other objects of votive character. The peculiar head-dress of crescent form seen on several of the statuettes occurs also on a British example from the Severn (fig. 124), but more evidence is required before much can be deduced from this coincidence.
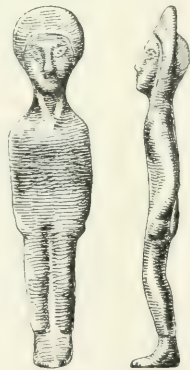


Fig. 63.—Bronze statuette, Despeña Perros. (⅔)

Iron swords of yataghan type (fig. 64) are another peculiarity of the Early Iron age of Spain, and the best known site is Almedinilla, in the south-eastern angle of the province of Cor-dova, near Priego, where spear-heads with prominent ridges and triangular dagger-blades also occur (Cases 77, 78). It is at present impossible to date the swords with any precision, but

they seem to have been in use during the entire period of La Tène. The conditions in the Peninsula were essentially different from those in Central Europe at this time ; and, as in Britain, the term must not be too strictly interpreted.    There, if anywhere, Carthaginian remains are to be expected, as there were colonies, for instance, at Gades (Cadiz) and New Carthage (Cartagena) ; while such Greek settlements as Emporiae (Ampurias) and Saguntum (Murviedro) would account for the appearance of classical remains.    In a cemetery at Cabrera de Mataró (near Barcelona) a sword of this type was found in such association, and also brooches of La Tène I type with certain variations, while the ring pattern was also represented (as fig. 62).    What seems to be the handle of such a sword was found at Dodona in Epirus, perhaps as loot or a votive offering ; while weapons with virtually the same outline are known from Italy (Tolentino, Picenum), and appear on early fifth century Greek vases as well as on coins of P. Carisius, who was sent as propraetor to Spain,



Fig. 64.—Iron sword and spear-head, Almedinilla, Cordova.  ⅙

25 B. C.    The Romans had then had a footing in the country for about two centuries, and their presence further distinguished the Early Iron age of the Peninsula from that of Central and Northwestern Europe.

### British Section.

The names Albion and Ierne (Erin) for our islands may have been current in Aristotle's time, but they do not occur in any of his authentic works.    A contemporary of his, the geographer Pytheas of Marseilles, is by later writers credited with the use of the term Britannic islands.    It has been inferred that the Brythons had conquered these islands by the middle of the fourth century B. C. at the latest ; and they may have introduced iron and put an end to the Bronze age in this country in the fifth century.    But according to Prof. Rhys, *Ynys* (island) *Prydein* is nothing but a Welsh or Brythonic rendering of the Goidelic *Inis Cruithne* (the island of the Picts), a name bestowed by the first wave of Aryan invaders.

It would be idle to pretend that the ethnology of Early Britain

is by any means clear, but a paragraph of suggestions may at least serve to indicate the principal points on which the controversy turns. With the proviso that the term Aryan refers rather to language than to race, we may combine the archaeological and philological evidence, and reasonably hold that the non-Aryan Picts were conquered during the Bronze age by Aryan Goidels (Gael). The Aryans are generally credited with the introduction of cremation into Europe, and on that supposition they must have
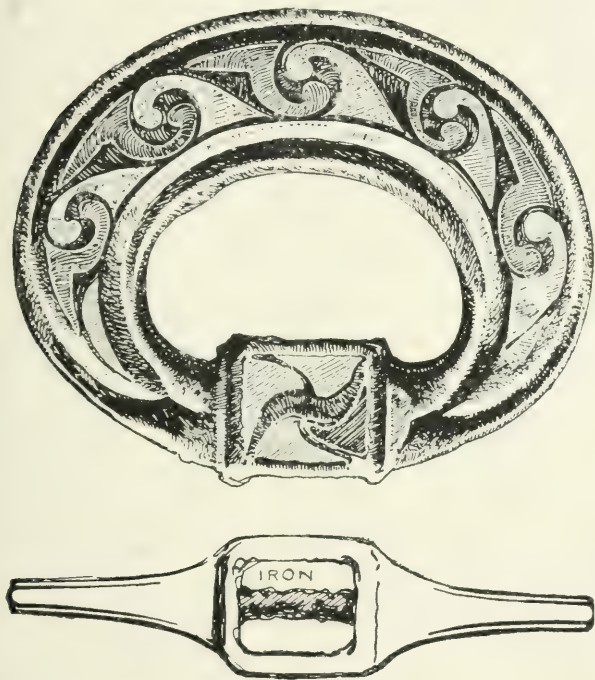


Fɪɢ. 65.—Enamelled 'terret,' Fayûm, Egypt, with base view. (½)

found bronze already in use among the natives here (*Bronze Age Guide*, p. 25). The short skulls in the barrows of Yorkshire seem to belong to these invaders, and for about five centuries they were the dominant race in what is now Britain. In this country, apart from exceptional cases presently to be noticed, iron makes its first appearance in unburnt burials, like those at Arras (p. 106), and geographical names have been cited in support of the hypothesis that the new-comers (Brythons or P Kelts) were from

G

north-east France. The head-forms are, however, so far incon-
clusive (below), and it should be pointed out that Arras in Gaul
was in the territory of the Atrebates, who were apparently
located south of the Thames in Britain ; further, the Parisii in
Gaul belonged to the true Kelts of the central area, and their
presence in Yorkshire cannot be said to prove a close connexion
between the burials of the Wolds and the Champagne.

The longitudinal index of certain skulls from Iron-age burials
in Yorkshire—Arras, 74 ; Danes' Graves, 74–73 ; Grimthorpe,
71—is fairly uniform, and shows a long-headed population sharply
separated from the occupants of the Round barrows, whose
average index is 81–83 (*Bronze Age Guide*, p. 21). At first sight
we might attribute the population during the centuries imme-
diately preceding the Roman conquest to a fresh immigration
from the Continent, but Canon Greenwell suggests another explana-
tion, i. e. that this difference of skull-form might be due to the
fact that the intruding short-headed people of the Round barrows
were gradually absorbed by the earlier and more numerous race
whom they had overcome. The subdued population may at first
have been kept in a servile condition, and not as a rule interred
with their masters in the barrows ; but as time went on, and
intermingling of the two peoples became common, a change would
gradually take place in the racial characteristics, and the features
of the numerically stronger people would predominate. The
Iron-age type of skull in Yorkshire would therefore approximate
to the neolithic type, which is there markedly dolichocephalic
(index 70–71, against the modern English 79). Dr. William
Wright, who examined a number of skulls from Danes' Graves
now in Driffield Museum, thinks this a plausible theory, and
suggests the alternative that they belonged to settlers from the
Continent more or less identical in race with the long-headed
neolithic population of Britain, but who had become a mixed race
before reaching our shores. The average of seven female skulls
he found to be 74, that of fifteen males being 73 ; and these
measurements are confirmed by those of twelve from the same
site in the museum of the Royal College of Surgeons : average
(probably of both sexes) 73·5.

Traces of the transition from bronze to iron are not numerous
in this country, but the collection includes two iron socketed celts
from Walthamstow (fig. 66), and North Wales (the latter with
part of its wooden handle), which show the bronze pattern in
a new material ; another is known from Lough Mourne, Belfast.
The Swiss example here illustrated is not a direct copy of
a Bronze-age type, and is purely an Iron-age form. Another
good example of transition is the recent discovery at Colchester
of two cinerary urns of a common Bronze-age type (as at Ashford,
*Bronze Age Guide*, fig. 19), one containing, besides the ashes of the

dead, an iron socketed spear-head with lozenge-shaped blade, and a ring between the blade and socket in the same position as the slight moulding seen on some in this collection (fig. 75, no. 7). It is worthy of remark that both these instances occurred in Essex, where Late-Keltic remains were exceptionally numerous; but the find at Hagbourne Hill shows that Bronze-age types were still in use after the introduction of iron in Berkshire. The hoard included two socketed celts of bronze, looped lance-heads, bridle-bits, and pins (one like fig. 142) of the same metal; but also harness-rings as at Arras, with iron cross-bars as in the 'terrets' of the period (fig. 65).

The chariot-burials of Yorkshire recall the rich sepulchres of Champagne, and we may perhaps recognize here an oversea branch of the great conquering race represented by the Galates. Still later, but only in the south-east of England, appear cinerary urns closely resembling accessory vessels in skeleton-burials of Champagne; and Caesar says that the Belgae, who were to a large extent of German extraction, conquered South Britain some time before his invasion. Cremation had not been superseded in North Germany, and it is permissible to see the Teutonic element in the family grave-circles at Aylesford. We thus get the following succession of invaders:—
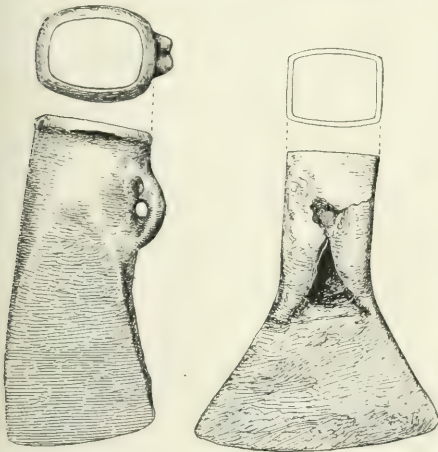


Walthamstow, Essex.　　La Tène, Switzerland.
FIG. 66.—Iron socketed celts.　($\frac{1}{3}$)

About 1000 B.C. Aryans, perhaps the Goidels, introducing crema-
　　　　　　　　tion from some eastward district.
400–300 B.C.. . Brythons, as in Yorkshire, and probably further
　　　　　　　　south, perhaps related to the Galates from
　　　　　　　　north-east France. These are the Gallo-
　　　　　　　　Brythons of Prof. Rhys.
About 200 B.C. . Belgae (partly Teutonic), who reintroduce cre-
　　　　　　　　mation through north-east France, where they
　　　　　　　　had superseded purer Gaulish tribes.

Whatever the value of such speculations, the fact remains that in Yorkshire are found the graves of warriors closely resembling those dating from the fourth century in Dépt. Marne, while the same type of pottery occurs in the Gaulish area about 300 years before it is used for cremated burials at Aylesford, in the first century B. C. In the interval, the funeral customs in north-east France had evidently undergone a complete change, while the sepulchral pottery retained certain of the ancient forms. This may mean nothing more than that the Gaulish potter made vessels of a customary pattern, and that the Belgic German, equally observant of tradition, used those same vessels as cinerary urns for the dead of his own race. It is a fair deduction that the natives of this part of Gaul carried on many of their old traditions, but that the foreign custom of cremation was established in their country by a dominant people from beyond the Rhine. A great deal depends on future discoveries in the central or more Keltic area of France, such burials as that with a chariot at Le Gros Guignon (Dépt. Vienne) being inconclusive as to date.

The routes of communication between Britain and the Continent in the Early Iron age have been elucidated by Prof. Ridgeway, who amplifies, and on some points corrects, the views put forward by the late Mr. Elton. The best evidence is that afforded by the route adopted for the transport of tin. Strabo, who wrote in the first twenty years of our era, enumerates wheat, cattle, gold, silver, iron, skins, slaves, and dogs as exported from Britain in his day, while ivory bracelets and necklaces, red amber beads and glass vessels were among the imports. At that time tin, which, ac- cording to Caesar, was found in the interior, does not seem to have been worked to any considerable extent, though Diodorus Siculus gives an account of the mining in Cornwall, probably borrowed from the Stoic Posidonius, who travelled in Britain about 90 B. C. The inhabitants of Belerion, he says, were very fond of strangers, and civilized in consequence. After smelting and purifying the metal, they beat it into masses shaped like knuckle-bones, and carried it to an island off Britain called Ictis, which at low tide was accessible to wagons. Here the merchants bought the tin from the natives and carried it over to Gaul, reaching the mouth of the Rhone (Marseilles) overland in about thirty days.

The identity of Ictis (also called, perhaps through a clerical error, Mictis) has been much disputed, but the recent geological researches of Mr. Clement Reid justify us in regarding it as the Isle of Wight, which was known to the Romans as Vectis. A natural causeway between Yarmouth and the mainland south of Lymington was formed by a reef of limestone running north from Yarmouth harbour, and it must be remembered that the Solent two thousand years ago was considerably narrower and shallower than at the present day. On the other hand, identifica-

tion of Ictis with St. Michael's Mount (probably not an island at
that time), or the Isle of Thanet, is hardly possible, the former
involving a long and dangerous sea passage to the mouth of the
Loire or Garonne, the latter a difficult land-transit through
a densely wooded country.

Posidonius, again, is no doubt the authority for the following
statement of Diodorus, which shows a clear distinction between
the Cassiterides (Tin Islands) and Cornwall. 'Above the land of
the Lusitanians there are many mines of tin along the little
islands which lie in front of Iberia in the ocean, which are there-
fore called the Cassiterides. Much is likewise conveyed across
from Britain to Gaul which lies opposite, and is carried on horse-
back through the interior of Gaul by traders to Massilia and
Narbo, the latter being the greatest trading centre in these parts.'
Prof. Ridgeway deduces from this and other passages that the
earlier route led from Narbo (the modern Narbonne on the Golfe
du Lion) by way of the Garonne, past Corbilo at the mouth of
the Loire, thence by sea round Ushant or across Armorica, and
thence to Wight by way of the Channel islands. Corbilo was
flourishing at the time when Pytheas, the geographer of Marseilles,
went on his voyage of discovery (about 330 B.C.), and it is probable
that the route across the straits of Dover was as yet undeveloped.
That the Greeks already knew of the British tin trade is shown
by a quotation from Timaeus, the Sicilian historian, who wrote
between 350–326 B.C.; the common expression 'Keltic tin' may
therefore point to British as well as Spanish sources (p. 12).

The British tin trade seems to have waned by the time of
Polybius (about 150 B.C.), and though Caesar records that the
Veneti, who occupied what is now Morbihan, had command of
the sea and were accustomed to sail to Britain, no mention is
made of Corbilo. It was not till after the Belgic invasion had
opened up communication between Kent and northern Gaul that
the new route was opened to Marseilles by way of the Seine and
Rhone. It was this overland journey that in the opening years
of the first century B.C. occupied thirty days: but when the
Romans in Caesar's time gained access to the tin islands off the
coast of Galicia, the British tin trade practically ceased.

Certain facts and theories with regard to the population of
Britain during the Early Iron age have been mentioned in the
Introduction, and it remains to notice the account of our island
given by Caesar. This information, doubtless collected from
native sources during his second campaign, 54 B.C., is already
familiar; but certain statements that bear on the archaeology of
the period must be examined more closely. For three hundred
years, perhaps, the eastern coast districts of Britain had been
given over to agriculture, and trade in various commodities (p. 84)
with the Continent was evidently of long standing, coinage being

introduced by way of Gaul about 200 B.C. Of the country north of the Thames Caesar can have had little personal knowledge, and his account of the natives and the mining of tin is far from precise; though his conception of the inland population as aborigines who had been displaced by Belgic invasions, seems to be very near the truth. While the inhabitants near the Straits were the most civilized and resembled their neighbours of Gaul, most of those inland sowed no corn, but lived on milk and flesh, using skins of animals for clothing. All, but presumably not the southerners, stained their bodies blue to frighten their enemies, wore their hair long, and shaved all but the upper lip.

The native military force consisted of infantry and charioteers, but there was perhaps no cavalry in the strict sense. The chariot, as in the time of Homer, took the warrior in and out of the battle, but the fighting was generally on foot. As to the scythed-axles mentioned by Pomponius Mela (about A.D. 45), and Silius Italicus, archaeology is at present silent, though both Tacitus and Lucan (also of the first century) used the same word (*covinnus*) for the British chariot, without referring to the blades on the axles. A thick curved blade, 6 in. long, with a stout tang of quadrangular section nearly 17 in. in length, was found with an iron wheel-tire, a dagger, sickles, tools, and chains, at Bigbury camp, near Canterbury, but was probably the coulter of a plough. A similar iron object has been found in the marsh-village at Glastonbury, and scythe-like blades are known from Ham Hill, Somerset, and Bokerly Dyke, Wilts.; but no actual scythed wheel has come to light. Caesar, who saw scythed chariots in Pontus in 47 B.C., would hardly have failed to mention any he saw or heard of in Britain. Xenophon mentions 200 scythed chariots in the army of Cyrus, B.C. 401.

Another problem is raised by Caesar's statement that the bronze used in Britain was imported. This country is one of a limited number in which tin and copper naturally occur in considerable quantity, and both must have been worked here long before Caesar's time. He may, however, refer to coins, or to vessels of foreign manufacture such as those found at Aylesford (p. 115). The maritime iron-producing district mentioned was no doubt Sussex, where the metal was worked as recently as the eighteenth century; and it was perhaps from this centre that the use of iron bars as currency spread through the interior of Britain (p. 148).

Contact with the Continent during the Early Iron age is shown not only by the discovery of several manufactured articles evidently made abroad, but by the use of imported raw materials. Coral is found in south German grave-mounds dating from the close of the Hallstatt period, and was common from France to Hungary, and rare in North Germany, in the early part of the succeeding

period of La Tène. Certain discoveries of the kind are said to have been made in South Russia and the Caucasus, but there, as in England, it is difficult to say positively, even after chemical analysis, that the material employed was actually coral. M.Salomon Reinach has prepared a list of known examples, and contends that the use of coral ceased in Europe between 300 and 250 B.C., its place being taken by enamels coloured in imitation and attached to bronze or other metal in a similar manner. He includes, however, in his list the famous Witham shield (fig. 68) on which the coral is unmistakable and in excellent condition, and over- looks a chronological difficulty, as the shield can hardly be referred to the third century B.C. Another instance of the later use of coral in this country has recently come to light at Colchester, in a Late-Keltic burial containing cordoned urns with covers, as at Braintree (fig. 133). A well-made bronze bowl or cup had a moulded handle, on an angle of which was fixed, by means of a rivet, a stud of this material in good condition. Of several inlaid ornaments found in Yorkshire it is difficult to speak with certainty (p. 108), but the two undoubted instances quoted are not exceptional in Britain (p. 105). Further, it may be noted that specimens have been found in Kent of a peculiar type of bronze bracelets, possibly made in imitation of rough coral, as worn on a necklace in the form of beads. Similar bronzes, covered with round stumps irregularly placed, are published from the well-known sites of Stradonic and Mont Beuvray, as well as from the Upper Rhine and Bavaria ; and all may well be attributed to the late La Tène period, though one piece is said to have been found in a Frankish grave at Cologne.

The earliest centre of enamelling in Central Europe has not yet been determined, but the well-known cemetery at Koban in the Caucasus has yielded enamelled bronzes which seem to throw back the industry to a very remote date. The methods adopted closely resemble those of the La Tène period, the ground being hollowed out to receive the enamel (the *champlevé* process) ; and the designs consist of running spirals, lozenge diapers, animal forms, and key-patterns, executed on oblong plates to be attached to the girdle. On the strength of several bronze brooches from this site, belonging to an early Italian type (as fig. 26, no. II *b*), the late Prof. Virchow assigned the cemetery to the tenth and eleventh centuries before our era, but there are indications of a later date, and in so remote a district early forms may well have lingered on for several centuries. Further exploration in the Caucasus will probably solve one of the greatest current problems of archaeology.

Leaving Koban out of the question, we may trace the use of enamel for the decoration of metal back to the middle La Tène period in Central and Western Europe. For purposes of chro-

nology, perhaps the most important discoveries are those at
Flavigny (Marne), and La Bouvandau (Somme Tourbe, Marne),
where objects decorated both with coral and enamel have been
found associated in chariot-burials. According to Dr. Tischler,
lumps of red enamel were at first cut or moulded into domed
discs, which were attached by pins through the centre, like the
coral they replaced. This method is well exemplified by the
ornamental discs found with the Bugthorpe sword (fig. 86); and
the Thames shield (plate I) shows another method of applying the
bosses to the metal, by light decorative framework.

Up to a certain point enamelling seems to have been developed
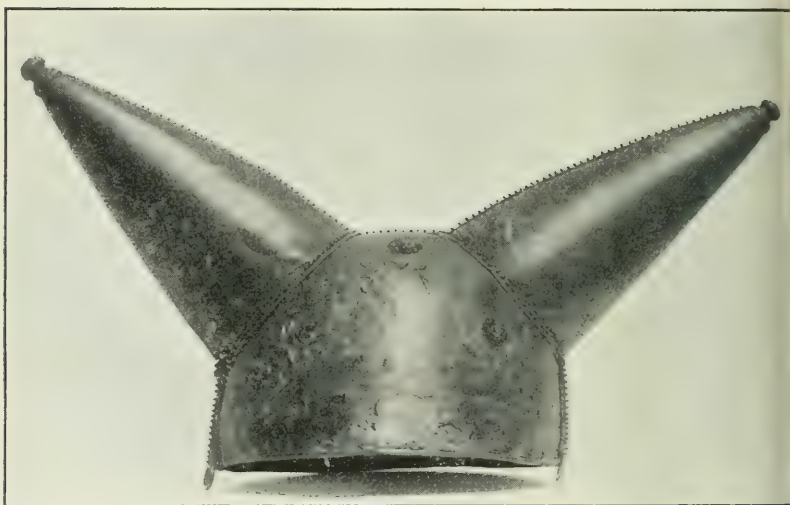


FIG. 67.—Bronze helmet, Thames at Waterloo Bridge.   (¼)

on parallel lines in this country and abroad, except that enamels
on iron, as well as bronze, are common on the Continent. Red
was the only colour employed at first, and true enamelling began
with the application of a vitreous substance to a metal ground by
fusing the powder. The ground was prepared at first by grooving
the surface in parallel or crossed lines to key the enamel; and
this cross-hatching method may be seen on British helmets
(figs. 67, 59) or on the bow of the Walmer brooch (fig. 82).
It is probable that this deep scoring of the surface became, in
course of centuries, an ornamental feature in itself, apart from the
enamelling.

As the craftsman became more skilful, he succeeded in covering

larger surfaces with enamel and evolved the *champlevé* process, in which the ground is scooped out to form a bed for the fused material. Nowhere was greater success attained by this method in the Early Iron age than in Britain; indeed, finds of this description are so rare abroad (fig. 65), that there are solid reasons for supposing this particular style to have been confined to this country, Britain agreeing best with the statement of Philostratus, a Greek sophist at the court of Julia Domna, wife of the emperor Severus. Writing early in the third century of our era, he notices a boar-hunt in describing a series of paintings; and after mentioning the variegated trappings of the horses, adds: 'They say that the barbarians who live in Ocean (the river supposed by the ancients to surround the earth) pour these colours on heated bronze, and that they adhere, become as hard as stone, and preserve the designs that are made in them.'

One or more pieces of red glass paste, of which a specimen is exhibited, have been found in or near the Hill of Tara, co. Meath, and seem to have been unearthed during excavations there about 1860, but overlooked at the time and left on the ground. Another piece, about the size of a man's head, may have come from Kilmessan in the same county, nearly three miles distant, having been discovered in a sand-hill which was removed when the Meath railway was constructed. The incrusted and decomposed condition of the surface showed that the mass had been buried a considerable time, and there can be little doubt that it was connected with the process of enamelling, practised with such success by the Late-Keltic population. The red material, to which the colour of the whole is due, is red oxide of copper (cuprous oxide), and the glass is a tolerably pure silicate of lead and sodium, i. e. a variety of flint glass. The mean results of analysis are as follows, and an analysis of Mont Beuvray enamel is here given for comparison :—

| TARA HILL. | | MONT BEUVRAY. | |
|---|---|---|---|
| Silica . . . . | 43·28 | Silica . . . . | 42·89 |
| Lead oxide . . . | 32·85 | Lead oxide . . . | 28·30 |
| Potassium and calcium | | Tin oxide . . . | 2·25 |
| oxides, with loss . | 1·44 | Lime . . . . | 8·28 |
| Aluminium and iron | | Alumina . . . | 2·75 |
| oxides . . . | 2·75 | Oxide of iron . . | 2·45 |
| Cuprous oxide . . | 9·86 | Cuprous oxide . . | 6·41 |
| Soda . . . . | 9·82 | Soda (by diff.) . . | 6·67 |
| | 100·00 | | 100·00 |

The melting-point was found to be 686° C., that of pure silver being 954° C., and it melts to a dark-green transparent glass. The mass might, therefore, be regarded as fused material that had

been prepared for red enamel to be used cold, or as material awaiting fusion for the production of enamel (probably green).

It should be noticed that the enamel does not monopolize the surface, but that broad bands of the bronze ground are left, to combine with the colour in peculiar designs that are remarkable for their grace and freedom. Though the metal seems to have been blackened in one of the specimens illustrated (plate v, no. 3), it must be borne in mind that the bronze was generally of a golden colour (as no. 2), which would enhance the splendour of such artistic products as the Thames and Witham shields. In the first or second century of our era, other colours were introduced, and specimens are shown with blue (no. 4) or blue and white, in addition to red (as no. 1): this innovation was, doubtless, due to contact with Roman civilization, and enamelled brooches of S-form, showing the transition, are exhibited. The designs about the same time undergo a change, but perhaps only in the area most completely Romanized; and Late-Keltic scrolls with enamel sometimes appear on objects of Roman style, as a gold bracelet from a hoard of the second century found at Rhayader, Radnorshire (*Gold Ornament Room*).



FIG. 68.—Outline of shield, River Witham, Lincs. ($\frac{1}{8}$)

Most of the early British enamels are on horse-trappings (plate v), and only one or two pieces at all similar are to be seen in continental museums. Nothing is known of the history of

PLATE V. LATE-KELTIC ENAMELS FROM ENGLAND (½).
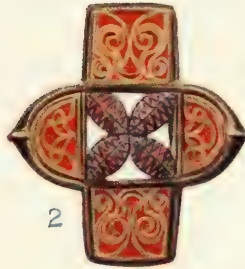
a piece at Florence resembling no. 2 ; and the recently discovered specimen (fig. 65) from the Fayûm was probably taken to Egypt as a curiosity by some Roman soldier who had served in Britain. But that the examples illustrated are not exceptional in our own country is proved by the existence of several pieces like no. 1 in this and other collections ; by another somewhat like no. 2 at Norwich, and by a bridle-bit from Birrenswark, Dumfries, almost
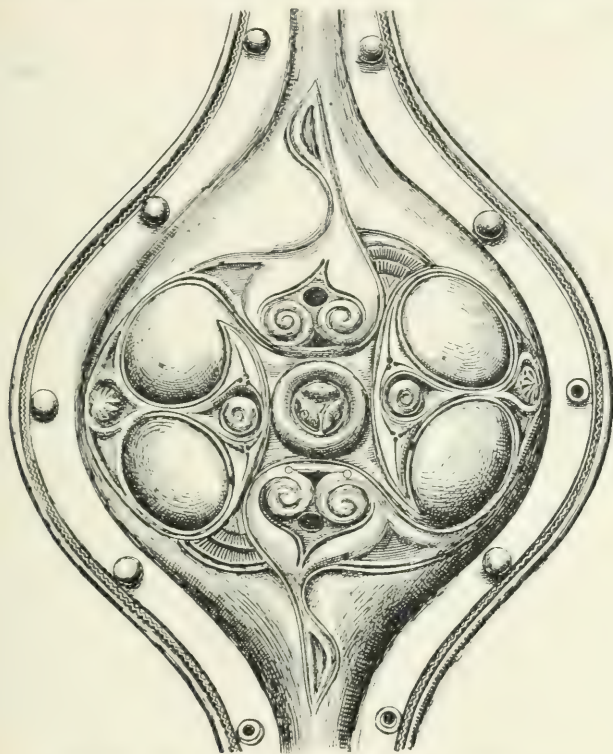


Fig. 69.—Shield from the Witham, central boss.   $\frac{1}{2}$

identical with no. 4 (Rise, near Hull).    Factories producing enamels of another kind have been discovered at Pompeii (before 79 A. D.) and Mont Beuvray (the ancient Bibracte), an important site in the Dépt. Saone-et-Loire, where Caesar mentions a general gathering of the Gaulish tribes in the year 52 B. C.

That part of Bibracte in which the workshops were situated was destroyed by fire before the Christian era, and the enamels found there, all of red colour, may safely be classified as Gaulish

or Keltic. A little later the new style of Roman imperial times was introduced, in which various colours were arranged within adjoining panels on the surface to be decorated, and all the metal visible between the enamelled spaces consisted of narrow strips that kept the colours apart, but were no longer an integral part of the design. Rectilinear and formal patterns are the most usual in this style, and besides the traditional red of the Kelts, blue, orange, green, yellow, and brown were employed in combination. The British enamellers seem to have retained their



Fig. 70.—Shield from the Witham, lower disc.  ($\frac{1}{2}$)

own methods for a while after the Claudian conquest, but the influence of Rome may be noticed in the decoration of the Embleton sword. The form of the blade and scabbard is native British, and the enamel on the handle is not used in conjunction with scroll-work (p. 90), but is arranged in rows of rectangular spaces filled with alternate colours. This latter was the method employed in the decoration of bronze horse-trappings found near Neath, Glamorganshire (p. 150).

The transition from coral to enamel is well illustrated by an

important series in this collection (Cases 55, 56). Though shields
of the early Britons are rarely found, there is enough material
in the collection to show the various stages of development
which, by reference to the Continent, may be approximately dated.
Style, form, and decoration combine to prove that the Witham
shield (figs. 68–70) is the earliest of its kind in Britain, and con-
trasts strongly with the circular bucklers of the Bronze age (*Pre-
historic Room*, Cases 3–7). The boar, which may here be recog-
nized by the rivet-holes and difference in colour round the out-
line, is here distorted to fit the space, but was long a favourite
emblem among the Keltic peoples (p. 136). Several points seem
to justify the attribution of the shield to an earlier period than has
hitherto been conceded. The pointed oval boss and thin central
rib appear on an oval shield (43 in. × 25½ in.) in the well-known
statue of the ' Dying Gaul,' which belonged to a series executed
about 240–230 B. C. to commemorate Greek victories over the
Gauls in Asia Minor. The Witham shield is about 1 in. longer,
but 10 in. narrower, and though without the classical border, is
engraved with designs (fig. 70) that are evidently derived from the
Greek palmette (as fig. 11). In view of further developments in
Britain, we may look upon the circular ornaments at the ends as
a native feature, but for the same reason we must assign this
specimen to the second century B. C. Too much stress must not
be laid on the Grimthorpe shield, which is exhibited below in
what was probably its original form, the length being about 36 in. ;
but there is an evident connexion between this Witham mounting
and the fragment found in the Thames near Wandsworth, and
now mounted in the same Case. The embossed work is slightly
different in style, and, to all appearance, later, while there is but
little engraving on this fragment, which evidently had a circular
ornament at both ends of the central rib. By analogy, the length
of the shield would have been 33 or 34 in. The tendency seems
to have been for the edges to acquire a double curve, and for the
terminal discs to approach the centre, where the pointed oval
expanded into a circular boss with broad flat edging. The inter-
mediate stage may be represented by the Grimthorpe shield,
though the ornament is there much simpler. A shield-boss,
engraved and *repoussé*, was found with the fragment already
referred to in the Thames near Wandsworth, but association in
such circumstances is poor evidence of contemporary date ; and
the circular mount is evidently from a shield like the enamelled
example from the Thames near Battersea (plate i). Here the ter-
minal discs have approached the centre, and the connecting rib is
nearly eliminated, the entire length of the shield being 14 in. less
than the Witham example. Moreover, the style of decoration is
different : the embossed portions, which in the earlier piece are
rotund in section and enriched by engraving, have become more

sharp and slender, the pattern more symmetrical and linear, and the coral replaced by red discs of enamel. These are attached by rivets through the centre and by ornamental bronze stays that are embedded in the enamel, but do not pass right through it. This,
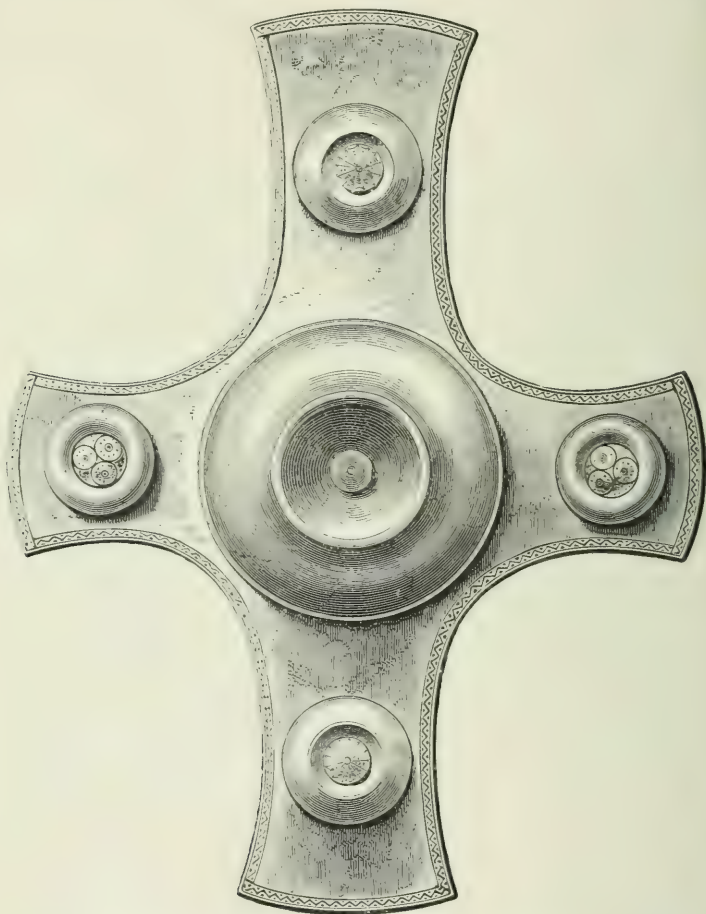


FIG. 71.—Cruciform bronze mount, Thames. ($\frac{1}{3}$)

then, is not strictly *cloisonné* or cell-work, but a substitution of red enamel buttons for coral; and the absence of other colours confirms the opinion of Dr. A. Evans, that the shield was made within a few years of the birth of Christ. The next important

change seems to be illustrated by the Polden Hill find (p. 128), which included bronze shield-bosses of the type found in the Danish mosses. These seem to be of the native pattern in use during the first century of the Roman domination in Britain and, except for their slightly conical form, are in fact not unlike the true Roman pattern, as that from Kirkham, Lancashire (Case D).

The cruciform bronze mount from the Thames (fig. 71) belonged more likely to a breast-plate than to a shield, the two rivets being too short for attachment to wood or stout leather. The ornamental discs in the side limbs are not actual rivet-heads ; and the depression in its centre renders the boss unsuitable to protect the shield-hand. The buttons in the five depressions are of bronze, engraved but not enamelled, though they bear some resemblance to enamelled specimens found at Bibracte (p. 91) and Hod Hill (Case E).

With the possible exception of those from Ogmore Down, Glamorganshire (now lost), the two bronze helmets in the collection are the only Late-Keltic examples known, and both exhibit a peculiar method of enamelling (p. 88), bosses being deeply scored to key the red enamel. Both also have embossed work, not quite in the same style, the horned specimen from the Thames (fig. 67) being rather slight and ineffective compared with the other (fig. 59), which has a broad neck-guard, and was probably found in the north of England. The latter evidently had a knob at the summit, the rivet-holes remaining, and in this respect resembled the usual Italian type of early classical times. Examples from Etruria of the fifth and later centuries B. c. may be seen in the *Etruscan Saloon*, but it is unlikely that the British specimens are earlier than the Christian era. The broad neck-guard was a feature of Roman helmets (example from Tring, Herts, in *Central Saloon*), and like them the British specimen probably had cheek-pieces : but the horned helmet had no knob or neck-guard, and was apparently fastened by a chin-strap. Helmets with similar horn-like projections occur on the Roman arch at Orange (Vaucluse), dating from 21 A. D.

Swords of the Early Iron age are but rarely found in the British Isles, and, as might be expected, include few early types. Besides a notable example of Hallstatt pattern (fig. 72), some examples of La Tène II type have been found in the Thames, fairly well preserved, with tapering point and ogee-guard on the sword, and a loop near the mouth of the metal scabbard. Two scabbards in Case 56 are worthy of special notice, as being good copies of an unusually long type generally found in Switzerland, and rarely elsewhere. That from Corroy, Marne, exhibited in Case P, long and unwieldy as it is, measures 4 in. less than the Thames specimen (plate VI, no. 4), which shows the transverse bands and heart-shaped chape of its prototype. It may be noted here that the

Insubrian Gauls are said by Polybius to have used extremely long swords at the battle of the Addua, near Milan, in 223 B.C. The blades bent with the blow, and had to be straightened out with the foot before being used again. Somewhat later in style, but of the same type, is that from the Thames at Amerden (plate VI, no. 6) which is ornamented at the mouth with applied open-work and engraved basket-pattern ; while an S-scroll takes the place of a transverse band. Another Thames specimen (plate VI, no. 7) represents the closing period of La Tène, with its blunt point and absence of chape : the two bars near the mouth being of the pattern also seen on the scabbard illustrated from La Tène (plate VI, no. 3), and on the Somme Bionne specimen itself. But the ogee-curve did not disappear from the sword in the period that may be called La Tène IV. The Sadberge (Haughton-le-Skerne) sword shows that the mount at the mouth of the scabbard was trans-ferred to the base of the grip, where it appears in the form of a cocked hat. The same feature occurs on an enamelled specimen found at Rudstone, East Riding, Yorkshire (York Museum), and
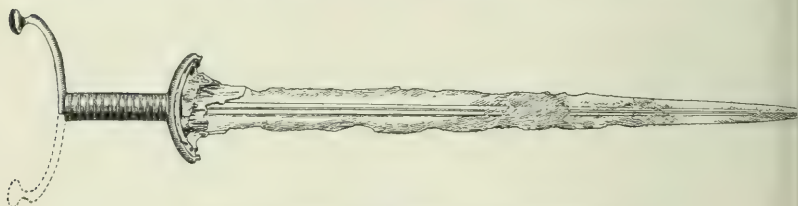


Fig. 72.—Sword of Hallstatt type, Thames.  ($\frac{1}{6}$)

on a sword-handle from Worton which is a solid bronze casting. The Embleton specimen shows the same peculiarity in a less pronounced form.

The British development of the La Tène sword is marked by two novelties of form, which occur together on the fine example from Cotterdale (plate VI, no. 9). The loop for suspension is placed half-way down the back (or front) of the scabbard, where it is supported by ornamental ribs expanding into open-work at the mouth. Examples are shown from Sadberge, Stanwick, Embleton, and Worton. The derivation of the chape is not obvious, but what may have been the prototype was found in Pilling Moss, Lancs. (Salford Museum), the binding of the scabbard terminating in two thin discs placed side by side at right angles to the plane of the sword. It would have been quite in keeping with what we know of Keltic artificers to emphasize and expand these discs, as on the Embleton, Cotterdale, and Stanwick examples—that from Sadberge has probably lost a chape of this description. The chape of a scabbard from the Tweed near Carham (plate VI, no. 2) seems to be an exaggerated form of that on fig. 86.
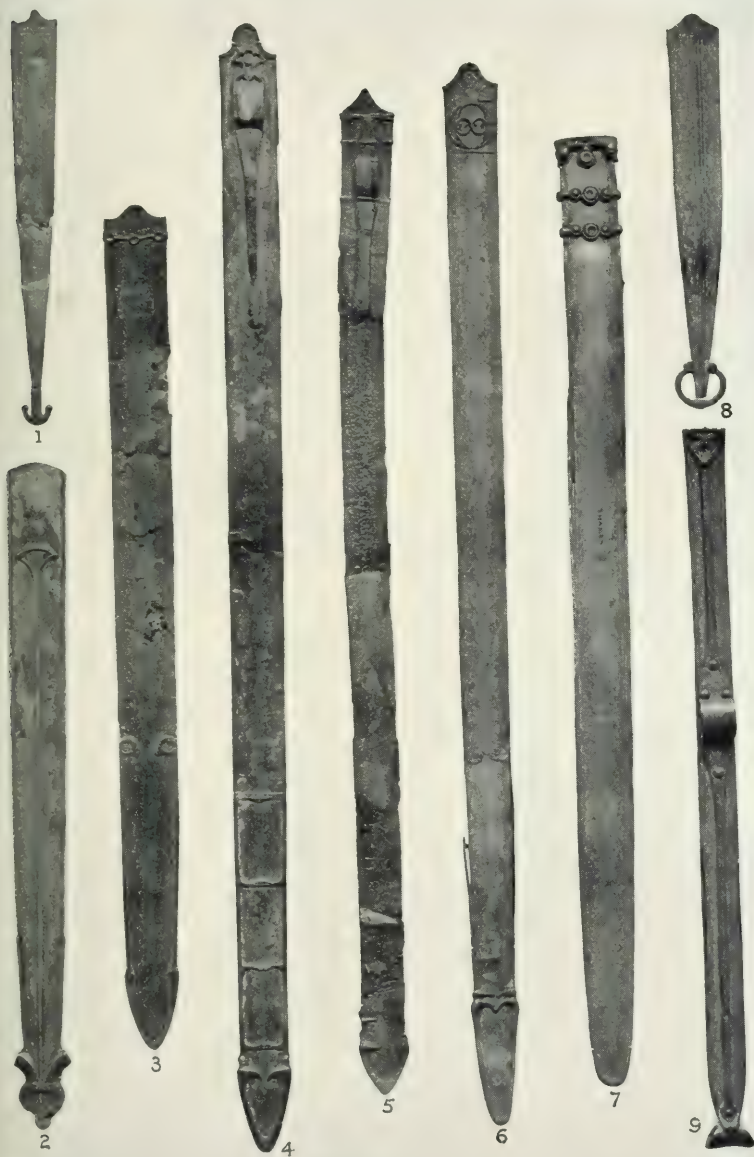
PLATE VI. SCABBARDS OF THE EARLY IRON AGE ($\frac{1}{6}$).

Another feature, that brings the series down to the Roman occupation, is the bronze mount at the base of the grip, in the form seen in Case E, from Hod Hill ; and its occurrence on the Cotterdale sword is another point of resemblance between these two specimens. It should be remarked, however, that the Dorset blade, which is imperfect, is broad, like the Roman pattern (Case D), while the Yorkshire specimen is of the form usual in Britain at the period—with two parallel edges, tapering point, and central rib on both faces. The best example is that from Embleton.

The series of daggers is less complete, but the Thames has yielded several that exhibit continental traits. Perhaps the earliest is that without its chape, but with tang to the blade and a bronze plate on the front of the scabbard ornamented with raised dots and running into a fish-tail form at the point. Whatever its actual date of manufacture, this specimen seems to afford a clue to the evolution of one from Chelsea, which has a semicircular finial (plate VI, no. 1). It is conceivable that a gradual lengthening of the crescent produced the type which is represented by two examples from the Thames at Wandsworth (fig. 73) and Battersea, the latter being somewhat later in style, to judge from the parallel development of sword-scabbards (p. 53). A further stage is marked by the pearled open-work chape of the Richmond dagger, the blade of which is curved in a fashion recalling the Roman pattern (two from Hod Hill, Case E). The same curved blade is seen in the remarkable dagger and sheath, evidently belonging together, from the Thames at Cookham, but this and a finely decorated scabbard from Wandsworth (fig. 74) are difficult to classify.



FIG. 73.—Dagger-sheath, Thames at Wandsworth. ⅓

Though there seem to be no exact parallels to continental spear-heads in this country, the Museum possesses several examples from the Thames that may safely be attributed to the pre-Roman period, and one or two that appear to be copied from a Bronze-age type. Their principal characteristic is the entire socket for the shaft, which contrasts with the split socket of the Anglo-Saxon
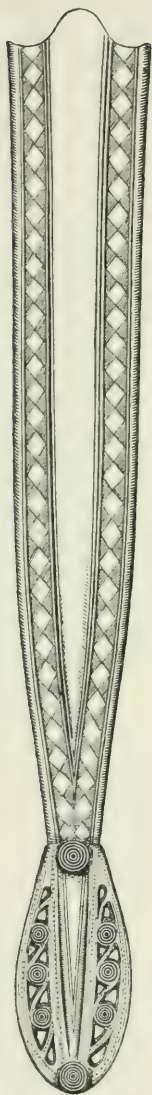
period ; and while the shape of the earlier blades
varies indefinitely, Saxon examples belong to a
few well-defined types.   The group here illus-
trated (fig. 75) includes two specimens with split
sockets (nos. 6 and 11), which are exceptions to
the rule ; three specimens from the Marne district
(nos. 2, 8, 10), the first of which has two grooves
at the centre, much like one from the Thames
(no. 1) ; and one well-preserved head from La
Tène itself (no. 9), with the blade widened below.
The curved edges of the last are characteristic,
and an imperfect example from the same site is
exhibited with the irregular wavy outline seen
on several extant.   In the Morel Collection is
an unusually large spear-head from a chariot-
burial, Dépt. Marne, but those illustrated are the
more usual types, of various sizes.   The remainder
are from the Thames at London, and include one
broad leaf-shaped specimen (no. 4), a long slender
pattern (no. 5), and angular forms (nos. 6 and 7),
which are not uncommon from the Thames.
Some of those illustrated have collars or engraved
lines below the blade for additional strength or
ornament (nos. 1, 7, 9), and most were fastened
to the shaft by a rivet through the sockets, seen
in no. 11.   A few iron ferrules for the butt of
the spear, some of unusual length, are exhibited
with the spear-heads.

An outline of the development of the brooch
named after La Tène has been already given
(p. 42), and it is only necessary to show here to
what extent the series is represented in Britain.
A fairly large number of the early type are
included in the Collection, and though the exact
place of finding is not always known, there can
be no doubt that the type took root in this
country not long after it became common in
certain parts of Gaul.   A still earlier connexion
with the Continent, and even with Italy, is sug-
gested by a number of Italian brooches, of which
two are shown from the eastern counties (fig. 76).
No less than seven other museums in the British
isles possess Italian specimens that were pre-
sumably found in our soil, and some have been
published, including a few from Ireland and
Scotland.   It must, however, be confessed that
the evidence is in most cases very inadequate,

and the best authenticated specimens come from the Thames, Hants, and Suffolk: their occurrence in the north of England, Scotland, and Ireland cannot in any case be regarded as evidence that those parts were in direct contact with Italy in the Hallstatt period. On the other hand, such Italian forms evidently served as models for native craftsmen, for an interesting example from Hod Hill (fig. 104) is clearly derived from an Italian pattern (as fig. 26, II e), and one practically identical is said to have been found in Cumberland. The copies may well be three or four centuries younger than the originals.

Of La Tène I type certain specimens are now published for the first time,



FIG. 75.—Spear-heads of Early Iron age.   ($\frac{1}{8}$)

but that from Cowlam (fig. 89) is already well known and is the most interesting as coming from an interment (p. 110). The pin is missing and the spring damaged, but it is easy to complete the outline by reference to fig. 77. This specimen is en-



FIG. 76.—Italian brooch, Lakenheath, Suffolk.   ($\frac{2}{3}$)

graved with running scrolls (as on fig. 74) and the ring-and-dot pattern, and closely resembles the earliest found at Hunsbury (p. 130). The well-preserved brooch from Dorset (fig. 79) is

H 2

somewhat earlier than one from the adjoining county (fig. 80), the bow of the latter being slightly clasped by the foot which has lost a setting, probably of coral. One illustrated from the Thames has the spring supported by an axis of bronze (fig. 78).

' Compared with the earlier type, examples of La Tène II in this country are extremely scarce, and that illustrated (fig. 81) is
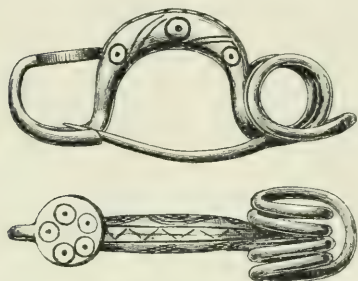


FIG. 77.—Bronze brooch, Water Eaton, Oxon. (½)
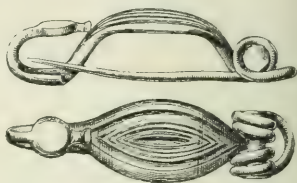
FIG. 78.—Bronze brooch, Thames at London. (½)

without its spring and pin, but the origin of the collar in the centre of the bow is here demonstrated. One from Spettisbury has a long spiral spring on an iron axis but in one piece with the bow, and has the collar well defined. The fine specimen from Walmer
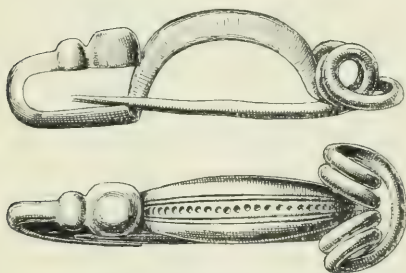


FIG. 79.—Bronze brooch, Blandford, Dorset. (½)
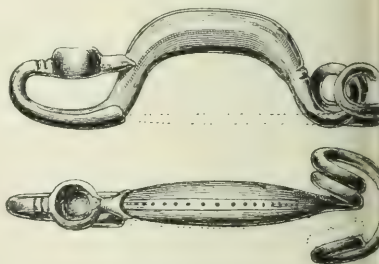
FIG. 80.—Bronze brooch, Avebury, Wilts. (½)

(fig. 82) belongs to the close of this period, the collar becoming merely ornamental and the foot coalescing with the lower part of the bow. The next (fig. 83) is of silver, from a cremation in Essex (p. 141), and is one of a pair connected by a chain, like that from Folkestone, which is almost identical. This is a step in advance and belongs to La Tène III, the open foot being crossed

by a pair of crescents, but the general form remaining as before.
The foot soon becomes a solid plate, and several examples of what
must have been for
some centuries the
brooch of the com-
mon people are ex-
hibited ; but certain
by-forms must now
be noticed. The
Aylesford pair of
brooches had a hook
below the collar
(fig. 96), and the
head spread over
the spring like the
bell of a trumpet.
This idea proved



Fig. 81.—Bronze brooch, Royal Exchange,
London. (½)

fruitful in Britain, and there will be little difficulty in seeing
the origin of such elaborate forms as fig. 84. The ring at the
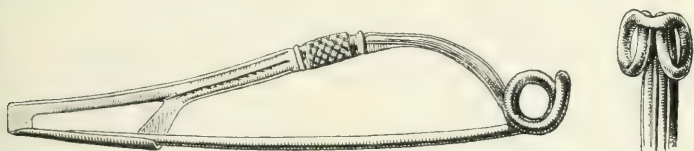


Fig. 82.—Bronze brooch, Walmer, Kent. (⅔)

head (as fig. 83) has now become an integral part of the
brooch, and the solid foot gives scope for Late-Keltic ornament.
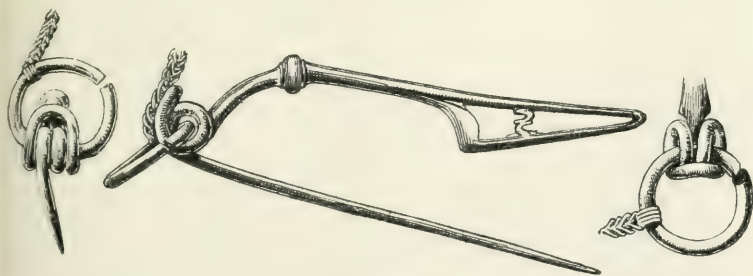


*Fig. 83.—Silver brooch, Great Chesterford, Essex. (⅔)

The hook on the Aylesford pair occurs also on a similar specimen
from Stradonic, Bohemia ; and double hooks are common on
brooches of the period in Pannonia. These no doubt suggested

the moulding on the Backworth and later Aesica brooches, but the box-foot seems to be a purely British invention, best exemplified in Northumbria. Instead of the La Tène bilateral coils, the spring now consists of a wire spirally wound on an axis which passes through a loop in the head. The same principle was adopted on another type that dates in Britain from the first and second centuries of our era: an imperfect example (fig. 109) was included in the Polden Hill hoard, and a fine specimen of golden colour was found with other British objects in the bed of the Churn at Cricklade. This type, which preserves the open-work patterns at the foot, is however more closely connected with Roman civilization, and has a semi-cylindrical cover to the spring which forms a cross-bar at the head. An intermediate form, in which the tension of the spring is increased by attaching the
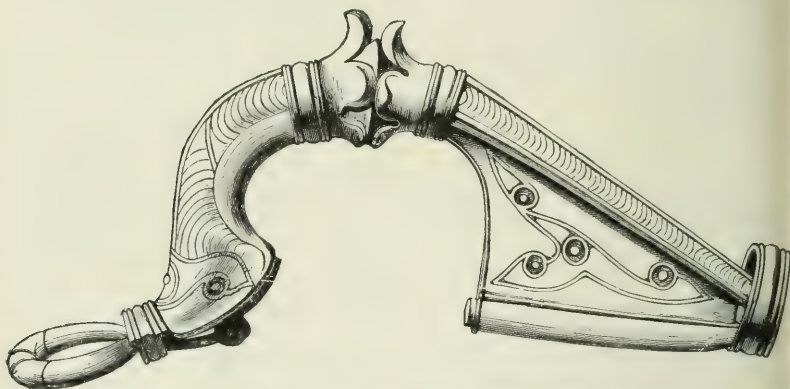


FIG. 84.—Silver-gilt brooch, Backworth, Northumberland. (⅟₁)

chord (p. 42) to a hook in the head, is well represented in Case A.

Something may here be said of the decorative motives and processes of the early Britons by way of introduction to the study of the exhibits. An endeavour has been made above to trace their system of eccentric curves to a classical source (pp. 19, 93), and the objects illustrated in the following pages will convey some idea of the beauty and variety of such designs, as they were gradually developed in our islands.

The *triskele* or three-limbed figure frequently occurs in early British art (as figs. 84, 99, 126), as well as on Keltic coins of Bavaria (p. 150), and seems to be closely related to the swastika or fylfot which was widely known in the ancient world. The peculiar projections on certain classes of bronze-work (figs. 86, 112–116) are somewhat suggestive of a pair of pouting lips, and

are confined to the Late-Keltic art of Britain. This lip-pattern, as it may be called, seems to be originally derived from the Hallstatt civilization, and three typical bracelets from that site (fig. 33) may well account for the nut-design on Gaulish and British bracelets (fig. 90), no. 2 being typologically earlier than nos. 1 and 3. The harness-rings from Hagbourne Hill and Arras have a similar design, but the Late-Keltic development may have been influenced by embossed bronze-work, the expanding ends of trumpet-curves in relief (fig. 144) being somewhat like the lip-pattern, especially when two such curves are placed end to end. A bronze 'terret' from Leicester shows to what lengths this transformation went in Keltic hands.

Bronzes of the period often have the ground covered with groups of engraved lines in different directions, in a manner suggesting basket-work. The Britons are known to have been adepts in the latter industry, and the pattern may, for want of a better term, be so named. It is possible that the hatched triangles seen on classical work (fig. 24) and even on local bronzes (fig. 74) may have suggested this manner of filling the background, but the first appearance of the regular basket-pattern cannot at present be precisely dated. It is well seen on mirrors (fig. 91), and occurs on gold (fig. 126) as well as bronze (fig. 86); while an earlier stage seems to be marked by the engraving on the Grimthorpe shield-boss, and portions of harness from Ashdown, Berks, and Polden Hill.

The golden colour of bronze under certain conditions may have given the impression of gilding, but this process has not yet been proved in Britain prior to the Christian era. The brooches found on the North Wall at Aesica (Great Chesters) are good examples, and date from about A. D. 200–250, while the Backworth brooch (fig. 84) and Upchurch torc (p. 137) may also be mentioned. Gilded bronze was included in the finds at Tre'r Ceiri, Carnarvonshire, and at Birdlip, Gloucs. (p. 114), while leather so treated is said to be common in the Early Iron age of Denmark.

A discovery made on Hagbourne Hill in Berkshire, south of Didcot and near the prehistoric highway running through Wallingford and Wantage, would have been of more importance if described with greater accuracy. In 1803 several oblong pits, about 7 ft. long and 3 ft. wide, were noticed about 4 ft. from the surface, and one of them had a circular excavation at the bottom, 18 in. in diameter, containing two bridle-bits of a common form, three rings with ornamental bosses like those from Arras, a pin with bent neck (like fig. 142), two others with straight stem and flat circular head, and above all a bronze socketed celt with loop, the point of a bronze spear-head, and two small bronze lance-heads with loops. The association of these remains in the same deposit shows the survival into the Iron period of implements

characteristic of the Bronze age ; but if the account is to be implicitly trusted, there were found with these objects large bronze rings (probably torcs) and a number of coins, of which one was silver and another gold. It would have been of great interest to discover what type was current at the time of the deposit, but the pieces were dispersed before details could be obtained (except that the gold specimen 'was rather large and flat, and perhaps belonged to the Lower Empire'), and nothing has since been published from the site except a socketed celt of the same description, which so far confirms the evidence afforded by the deposit here exhibited. The celt found in 1803, though illustrated at the time, was not included in the find as acquired for the Museum, but there is no doubt of the second discovery.

An interment of much interest was discovered in 1868 at Grim-thorpe, near Pocklington, East Riding of Yorks.  There was no barrow on the site, but a hollow was observed in the top of a chalk-pit, and found to contain a human skull.  On further examination a human skeleton was found lying in an oval grave $4\frac{1}{2}$ ft. long, at a depth of 4 ft.  It was in the contracted position, on its left side, with the head to the south-west.  The body had



Fig. 85.—Sword in scabbard, Grimthorpe, E. R. Yorks.  ($\frac{1}{9}$)

been wrapped in the skins of animals, probably goats, with the hairy side inwards, and these were fastened by a number of skewers made of the metatarsal bones of the goat.  The impression of short, fine hair was noticed on the bronze face of the scabbard ; the sixteen skewers, which were pierced at the butt, and in one case retained a transverse wooden peg, may originally have been used as lance-heads and mounted on wooden shafts.  On the breast were the metallic remains of a shield or buckler, and it was observed that the plates were so situated that its diameter cannot have been more than 12 in.  This, however, can only apply to the breadth of the shield, as the two semi-cylindrical rods, which are perfect as regards their length, evidently belonged to it, and were found, the one near the head, the other about the knees of the skeleton.  This is not precise enough to fix the entire length ; but if the rods were fixed on the front above and below the boss, the minimum length would be about 27 in., comparing well with the Thames example ($30\frac{1}{4}$ in.).  This analogy suggests that the small disc found with rivets below the shield was one of two fixed at either end of the shield as finials to the rods ; and the fact that the top end of the grave was the first to attract attention might account for the loss of a second disc, which

would be on a level with the skull. The
mounts, of which the decoration is noticed
elsewhere (p. 103), are exhibited in the
positions they seem to have occupied on
the wood or leather body of the shield.
The thickness of the material can be
determined, by the length of the rivet
still remaining, to have been $\frac{3}{8}$ in.

On the left side of the skeleton lay the
remains of a spear-head and a two-edged
iron sword in its sheath (fig. 85), the
entire length being 29 in. The handle
retains on an iron tang two oval iron
plates between which a grip of wood was
inserted, the space beyond at both ends
being covered by bone or horn which has
disappeared. The blade springs from a
short curved bronze guard, the ends of
which have transverse iron rods, recalling
rivets in a similar position on the long
Thames sword in Case 56. The face of
the scabbard was of bronze, the back of
iron, but both had a central ridge, and
the mouth was probably curved to fit
into the guard (as fig. 86). In yet another
respect this sword resembles that from
Bugthorpe, the heavy moulded chape of
bronze being of the same type in both,
but the Grimthorpe specimen being the
earlier of the two. Studs were also found
in the Grimthorpe grave closely re-
sembling those in position on fig. 86,
and undoubted coral was recovered.

The skull was recovered in a remark-
ably perfect state, and proved to be that
of a man about thirty years of age. It
was unusually narrow, long and tall, with
a long narrow face, prominent aquiline
nose, and square chin. The cephalic
index is calculated to be 71, dolichoce-
phalic subjects in general ranging be-
tween 70 and 75, and the average index
of Englishmen at the present day being
nearly 79.

Important excavations were made in
1815-7 by the Rev. E. W. Stillingfleet and
others on a spur of the Yorkshire wolds,
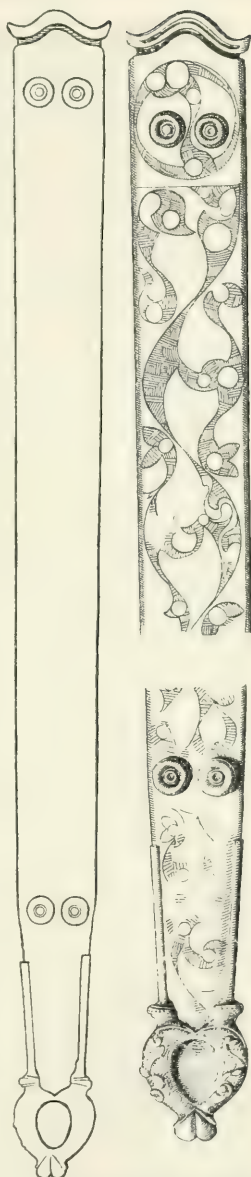


FIG. 86.—Bronze sword-
sheath, Bugthorpe,
E. R. Yorks.  ($\frac{1}{4}$ & $\frac{1}{5}$)

about three miles east of Market Weighton, East Riding.   A group
of barrows, about ninety in number, was almost bisected by the
road from York to Beverley, the farm north of the road being
known as Arras, that to the south, Hessleskew.   Beyond the
barrows, in different directions, were single and double dykes or
earthworks, no doubt thrown up for defensive purposes ; and
enclosing one of the barrows was a square fosse, the sides of which
corresponded with the cardinal points.   The barrows were circular,
and for the most part of small size and elevation, in some cases
almost escaping observation.    Nearly every barrow contained
a human skeleton, deposited in a shallow cist or cavity in the
chalk, in a contracted position, the head, in all but one or two
cases, lying to the north.   No coins or weapons, and scarcely any
implements, were found in the graves, while the comparative
abundance of ornaments also suggests that most were the graves
of women.    In several instances, the bones of the fore-arm were
found encircled by bronze bracelets, and one skeleton had in
addition a bronze ring round the bones of the leg (p. 64).   Another
was found with a torc of bronze in position on the neck.   It is
unfortunate that a complete record was kept of only three of the
barrows opened at that period, but these were of exceptional
interest and importance.

   The first is known as the Barrow of the Charioteer, and was
situated on the Hessleskew ground, being not more than 2 ft. in
height and 8 ft. in diameter.   In it was the skeleton of a warrior,
resting on his shield, the bronze boss of which had a diameter of
$4\frac{1}{2}$ in.   Portions of the wood still adhered to the boss, and its
original thickness may be inferred from the fact that the iron rim
was 1 in. wide.   On either side of the skeleton was an iron bridle-
bit and a chariot-wheel, with rings that doubtless belonged to the
naves.    The wheels were 2 ft. 8 in. in diameter, and the naves
about 5 in.    The rivets in the tires were well preserved, and
retained traces of the oaken felloe; while there seem to have been
as many as sixteen spokes.   Two boar-tusks (or more precisely
deer-horn tips) lay on the skeleton, one of them polished and
engraved with a lattice pattern at the base where there was
a square perforation.   With this was a bronze case of peculiar
form, perforated to correspond, but of unknown use.   A similar
example, 3 in. long, has been found in Etruria and regarded as an
amulet, as it had a small ring attached to it.   The Hessleskew
example measures 5 in. and is curved in the same way as the horn,
which is supposed to have been carried in it, but the rivet-holes
round the projecting foot show that it was originally attached to
some wooden or metal object, and a comparison is suggested with
two ponderous horns of bronze found in an island-fort, Lough Gur,
co. Limerick (Case 51).

   A second barrow, situated on the edge of the road in the Arras

ground, proved so rich in furniture that it has been called the King's Barrow. In a cist forming a circle of 11 ft. or 12 ft., excavated to a depth of about $1\frac{1}{2}$ ft. in the chalk, lay the skeleton of an old man surrounded by no small part of his possessions. The skeleton was laid on the back, with the head to the north, the arms crossed on the breast, and the leg- and thigh-bones also crossed. Very near the head were the skulls of two pigs. In a sloping position on either side was a wheel, of which the tire and fittings of the nave remained, with fragments of the original oak still adhering to them. The diameter of the wheels was 2 ft. 11 in. and the width of the tire $1\frac{5}{8}$ in., while the nave had a diameter of nearly 6 in. and was of iron plated with bronze. Under and adjoining the wheels were the remains of skeletons of two small horses, under 13 hands ; and near them were found several objects of iron, with or without a coating of bronze, including a pair of bridle-bits and two linchpins (p. 133), all evidently belonging to the harness or the chariot.

The Queen's Barrow, so called from its richness in feminine ornaments, was also in the Arras ground, not more than 3 ft. high,



FIG. 87.—Glass beads, England and Ireland. ($\frac{2}{3}$)

and of moderate size. In a cist cut in the chalk was a skeleton with the feet gathered up and the head towards the north. Near the head and upper part of the body were about 100 glass beads, mostly of a deep blue colour and ornamented with rings or spots of white ; but a few were of clear, green glass, entwined by a wavy line of opaque white (fig. 87, nos. 1–3).

Prof. Buckman, in 1851, analysed a specimen of the numerous beads of blue glass discovered in the Iron-age barrows of Yorkshire. It was of a Prussian blue colour, with three circular grooves round the circumference filled with white paste. It fused only at a very high temperature, a fact explained by the absence of lead in its composition ; and was found to contain silica, potash, soda, oxide of iron, a small quantity of alumina, traces of lime and magnesia, and oxide of copper. This last was used as colouring matter, and according to the method of combining and manipulating it, is capable of producing yellow, ruby, green, and blues of various shades.

Near the breast of the Queen's Barrow skeleton was a ring of red amber, over $1\frac{1}{2}$ in. in diameter, and there were also found two bracelets set with paste, a small ring, a pair of tweezers and an

ornamental pin with ring-head, resembling the ring-brooch of
later times. These were all of bronze, but there was also a gold
finger-ring, weighing nearly 4 dwt., chased with a quatrefoil on
the bezel. Surpassing all in interest were a pendant and brooch
set with coral (or possibly shell) that must be more particularly
described. The pendant consists of a circular bronze plate, 2 in.
in diameter, with a loop at the top. The front was ornamented
by three concentric rings of coral (now much decomposed and in
parts wanting) cemented in sections to the bronze, round a convex
stud of a different texture and colour from the rest. It is, how-
ever, evidently the same material as that on a brooch from Danes'
Graves. Marks of the lathe are visible on the face, and the back,
which is slightly concave, has mouldings somewhat in the same
style as the base of bronze vessels of Roman manufacture found
in Britain and elsewhere. To the lower part of the loop at the
back a triangular plate is attached by means of three rivets,
apparently for fixing the pendant to leather. While the form of
the bow and foot of the brooch are strikingly suggestive of La
Tène I type, more especially those with human faces found on
the Rhine, the head is evidently much later, and resembles the
type found at Polden Hill (fig. 109). The cross-bar is grooved in
imitation of a spiral spring but the pin works simply on a hinge,
and at either end of the rod was a large knob of coral, of which
only one remains. Resting on the bronze cover of the rod is a
stout bar of coral, surmounted by a similar knob, fixed by means
of a bronze pin through the centre, and in the expanding bow is
set a lump of coral that has apparently been carved at the top.
On each side of the bow are two almond-shaped openings in the
bronze which also contain coral, and may be of some significance,
as they occur on early Persian and Scythian gold ornaments, and
were afterwards perpetuated in the barbaric jewellery of the
Teutonic peoples during the great migrations. On the disc which
terminates the foot of the brooch is fixed, by means of a pin,
another coral knob, surrounded by seven radiating rods of the
same material : the same design on a similar circular foot occurs
on brooches found in south-east France (Dépt. Basses Alpes), but
though this and another brooch found on the same site (Barcelon-
nette) are evidently derived from La Tène I type, there is nothing
to show their exact date. Another brooch with seven rays of
coral on the upturned foot, found in a Gaulish burial after
cremation at Uzès (Dépt. Gard), has been assigned to the second
century, B. C.

In 1850 two or three other barrows at Arras were examined,
and one proved of importance. An undisturbed interment was
found beneath the mound, which had been levelled to some extent
by ploughing. At a depth of about 2 ft., a male skeleton lay
in an oval cist cut in the chalk, in the usual contracted position,

with the head at the north end and the face towards the east.
Close to the upper part of the skeleton were some bones of
a young pig or boar. Nothing else was found, but the skeleton
was very well preserved, and enabled accurate measurements to
be taken. It was that of a man about twenty-five to thirty years
of age, the cranium being of great thickness and density. The
calvarium and face were particularly narrow, and both jaws of
remarkable size and strength, while the cephalic index is estimated
at 74.

In the lower part of Cases 52–54 are exhibited remains from
two chariot-burials in Yorkshire. One was discovered in 1877
near the site explored by Mr. Stillingfleet in 1815–7, and was
described by Canon Greenwell. Under a small barrow, 14 ft. in
diameter and $1\frac{1}{2}$ ft. high, a grave had been sunk in the chalk-rock,
of circular form, 12 ft. across and 3 ft. deep. In it was the
skeleton of a muscular woman between thirty-five and forty years
of age ; but whether contracted or at full length is uncertain.
Though most, as in the Bronze age, were doubled up, there were
instances of extended burial at Arras, and this was probably
of the latter kind. Behind the head were the bones of the
fore-part of two pigs, and below the head a mirror of iron, $6\frac{3}{4}$ in.
across and 13 in. long with the handle, which had bronze mounts
at each end : in size and shape very like one found during the
previous explorations. At the back of the body were laid two
wheels slightly overlapping, and the tires had a diameter of
32–34 in. and a width of about $1\frac{1}{2}$ in. The naves were bound
with two bronze hoops over 5 in. in diameter and $1\frac{3}{4}$ in. wide
with a raised rib along the centre, but the metal was too thin to
give any additional strength. No other part of the chariot seems
to have been interred, but in front of the chest were the two
bronze snaffle-bits, about $9\frac{1}{2}$ in. long, and apparently made of iron
coated with bronze. In the earth thrown out of the grave
a 'terret' of bronze was subsequently found, like examples from
Hagbourne Hill (p. 103).

The other chariot-burial was at Beverley, and was opened by
Canon Greenwell in 1875. Here the only articles discovered
were those now exhibited, there being no bones of man or beast,
though such might easily have decayed in such a soil. The iron
tires and bridle-bits have been distorted and swollen with rust,
but there can be no doubt of their date and origin. The diameter
of the wheels was about 28 in., considerably smaller than the
Arras and Somme Bionne specimens.

A group of barrows at Cowlam, E. Riding, belonging to the
Early Iron age, and situated about two miles south of the Helper-
thorpe barrow (no. 49, Case 28), was excavated and published
by Canon Greenwell (nos. 50–53), from whose account the
following is extracted. The first was 22 ft. in diameter, 2 ft.
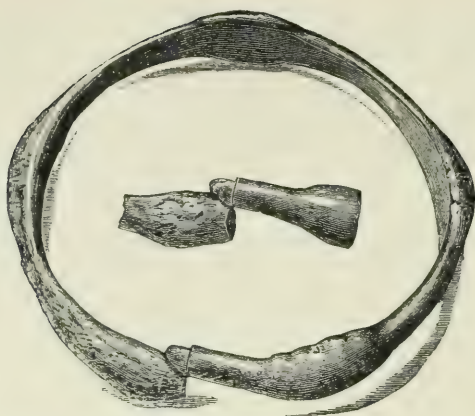
Fig. 88.—Bronze bracelet, Cowlam, E.R.Yorks. ($\frac{1}{1}$)
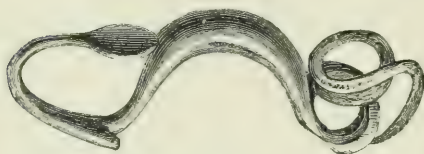


Fig. 89.—Bronze brooch, Cowlam. ($\frac{1}{1}$)
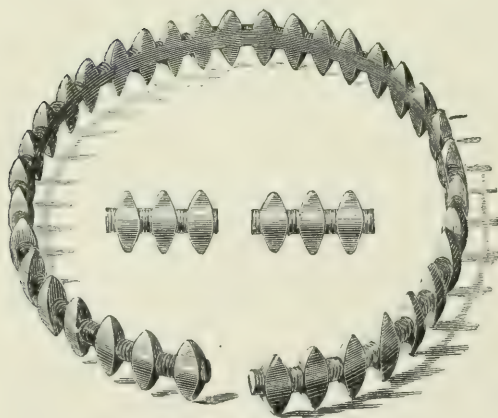


Fig. 90.—Bronze bracelet, Cowlam. ($\frac{1}{1}$)

high and made up of chalk rubble. At the centre, on the natural surface, was the body of an aged woman laid upon the left side, with the head north-east and the hands up to the face. On the right wrist was the bronze bracelet (fig. 88) exhibited, and near the chin the bronze brooch (fig. 89). Its pin had been originally of bronze in one piece with the spiral coil, but had been replaced by one of iron, fastened at one end into a piece of wood inserted in the spiral coil. The brooch itself is of La Tène I type. At the neck were seventy dark-blue glass beads with sunk patterns filled with white; and part of a shale bracelet, together with a large number of sherds, was found with a few flint chippings in the material of the mound.

The second barrow was of chalk rubble, 24 ft. in diameter and 1 ft. high, having on

the south side a trench running east and west, 5 ft. long,
1¼ ft. wide, and 3 ft. deep. In the mound were several frag-
ments of the same pottery as before, together with broken
bones of several oxen, of a goat or sheep, of two pigs, and two
horses. At the centre, on the natural surface, was the body
of a middle-aged woman, laid on the left side, with the head
north and the hands up to the face. On the right wrist was
a toothed bracelet (fig. 90) that has a remarkable 'patina' or
gloss. The body had been much contracted, and occupied
altogether a space of 35 in. Immediately to the west of, and
extending partly underneath the body, was a hollow, 7 ft. by
4 ft., and 3 ft. deep, in which were flint chippings, charcoal,
fragments of dark and hard-baked pottery, and many broken
bones of four oxen, one goat or sheep, and one young horse.

The third barrow was 32 ft. in diameter and 2 ft. high, made
up of earth and chalk. Beside the central interment were two
holes, one showing traces of fire, and both containing charcoal,
broken pottery, and bones of oxen, sheep, and horses. On the
natural surface was the skeleton of a woman about thirty years
old, on the left side, with the head north-east, but the hands were
not brought up to the face. Below it were several fragments of
two or three plain, dark, and hard-baked vessels, with the lips
turned over, like a bowl from Heslerton, East Riding, Yorkshire
(Case 26).

The last barrow of this group was of earth, 42 ft. in diameter
and 1 ft. high. On the natural surface at the centre was the
skeleton of a middle-aged woman, laid on the left side, with
the head north, and the hands above the knees. In contact
with the body was a quantity of charcoal, and in the mound were
pieces of the same pottery as in the last barrow, the tine of
a red-deer's antler worn smooth towards the point, and several
split bones of oxen.

There was nothing in the outward appearance of the mounds
to suggest a later date than others in the district, and the
contracted position of the skeletons is found to have been almost
universal on the Yorkshire wolds. Nor was there anything
with the interments except the Iron-age objects mentioned, to
distinguish them from Bronze or Stone-age barrows. This
suggests that no new people had come in with iron, but that the
use of that metal had gradually spread among the Bronze-age
population.

It is said that before the wolds were enclosed, there were as
many as 500 barrows, called collectively Danes' Graves, at Kil-
ham, about four miles north of Driffield, East Riding Yorkshire.
Fourteen opened by Canon Greenwell in 1864 were all of small
size, 16–24 ft. in diameter and 2–4 ft. high, formed of chalk
rubble. In all these barrows, and in some examined on other

occasions, the interment had been made in an oblong hollow cut in the original surface, the bodies being without coffins, and as a rule so much doubled up that they must have been tightly swathed. The hands were placed upon the chin, but the bodies lay indifferently on the right or left side, though the majority had the head at the north end of the grave : there was thus no tendency to face the sun, as in the Bronze period. In three cases a hand-made urn, full of small stones and about 5 in. in height, had been placed close behind the head. The most remarkable interment was that of a man, laid upon his right side, with the head at the west end. Lying close to the mouth and discolouring the teeth, was found a loop of iron 4 in. long, much corroded, probably a brooch. On each side of the body was placed a goat, their heads also to the west. Goats have also been found in a barrow six miles north of Pickering in the North Riding, and at Therfield, near Royston, Herts. The bodies were much more contracted than in the Round barrows of the district, and the graves were massed together as in a modern churchyard, not isolated as in the Bronze period. Further, the skulls were not brachycephalic, but, according to Dr. Thurnam, had an average index of 73 ; while the iron fragment and a bronze bracelet (the latter found about 1830 in another grave, with a jet bracelet and an iron 'comb'), suggest the Early Iron age.

Further excavations were conducted at Kilham, in 1897, by Mr. J. R. Mortimer, and had important results. Of twenty interments, eleven had the head at the north end, five at the south, and four at the west, while in fourteen cases the body lay on the left side. The method of burial was much the same as that observed before, though the dimensions of the barrows varied considerably. A fine bronze wheel-headed pin, inlaid with coral, was found in one grave behind the skull, and nine graves contained some article of iron ; but the most interesting discovery was that of a charioteer.

Under a mound measuring 27 ft. across and 3 ft. in height was a large grave, $8\frac{1}{2}$ ft. north and south, $7\frac{1}{2}$ ft. east and west, and $2\frac{1}{2}$ ft. deep. At the bottom of the grave lay the remains of two adult bodies, the iron tires of two wheels, linchpins, and other pieces of iron belonging to a chariot. There were also two snaffle-bits of iron, coated with bronze, and several rings and ornaments of bronze from the harness. At the loins of one body (no doubt the owner of the chariot) was a corroded piece of iron which had been ornamented with two bosses of shell, about $\frac{1}{2}$ in. across, set in thin bronze sockets. This may have been a brooch, but details sufficient to fix the type more exactly are unfortunately wanting. The other seems to have been the driver of the chariot, interred at the same time, with two wheels to represent the chariot, and harness to represent his team. The wheels, however,

do not seem to have been a pair, as one tire, which measures
2 ft. $6\frac{3}{4}$ in. across, exceeds the other in diameter by $1\frac{1}{2}$ in., the
other dimensions being identical, viz. $1\frac{3}{8}$ in. wide and $\frac{3}{10}$ in. thick.

This group of burials closely resembles those excavated at Arras
and at Scorborough Park, Beverley, and clearly belongs to pre-
Roman times; the term 'Danes' Graves,' both here and elsewhere
in the country, having no historical justification. The large
number of mounds in each of these sites show that the community
had occupied the neighbourhood for a considerable time, and the
cephalic index again points to a dolichocephalic race, the average
being 73 (male 75, and
female 71). The absence
of weapons of any kind
from the interments at
Arras and Danes' Graves
may indicate peaceful occu-
pation of the district, but
it is conceivable that the
inhabitants had been dis-
armed or had a better use
for their weapons. The
occurrence of actual buckles
in the latter cemetery
would render it probable
that some at least of these
graves were not earlier than
the Christian era. Though
examples are known from
the remarkable cemetery of
Koban in the Caucasus
(p. 87), the buckle, as dis-
tinct from the penannular
brooch, was not generally
known in the west before
the Roman period.

The Arras mirror (p. 109)
is not of the usual type found



Fig. 91.—Bronze mirror, Trelan Bahow,
St Keverne, Cornwall. ($\frac{1}{3}$)

in this country, and details of some in the collection may here be
added. That from Trelan Bahow (fig. 91) is typical of the series
and is of bronze, made in two pieces, and ornamented at the back
with engraved scroll-work enclosed in two circles. It is remarkable
that all these mirrors are decorated in the same style, the basket-
pattern (p. 103) being freely used as a filling. The Cornish speci-
men was found about seventy years ago with bronze bracelets, other
rings of uncertain use, and two glass beads, all in one of several
interments that were protected by covering-stones and other slabs
set on edge all round.

A mirror of this type was found in 1879 at Birdlip, near Gloucester, on the edge of the Cotteswold hills. The bodies had been interred in a continuous line, with the feet to the south, and whitewashed slabs of stone had been placed round and above them to form rough tombs or cists. The two outer skeletons belonged to adult males, but had no grave-furniture, while between them had been buried a woman in the prime of life, with a remark-



Fig. 92.—Vertical section of grave, Aylesford, Kent.

able series of bronzes. Besides the oval mirror, which measures $9\frac{3}{4} \times 10\frac{5}{8}$ in., and weighs $38\frac{1}{4}$ oz., there was a circular bowl, 9 in. in diameter, hammered very thin, and provided with a rim skilfully turned on the lathe. It lay on the face, and was accompanied by another bowl of similar make but smaller dimensions ($3\frac{1}{2}$ in. at the mouth). With the bones lay a fine silver-gilt brooch with spiral spring, pierced catch-plate, and hook on the bow, recalling an early Pannonian type which has been assigned to the first

half of the first century A. D. (p. 101). There were also four small bronze rings with an inside diameter of about $\frac{7}{10}$ in., a tubular bronze bracelet closing with a slight spring, and the handles of a key and knife, the latter terminating in an animal's head not unlike that in Taunton Museum, and having two eye-sockets for settings resembling those on the collar from Weymouth (Case 60) and the Aust statuette (fig. 124). Of sixteen beads found, most were of amber, the largest of which were $1\frac{1}{2}$ in. across, while two were of jet and there was one specimen of grey marble. Similar beads have frequently been found in Britain.

The associated objects at Birdlip point to the second half of the first century A. D., and this date is confirmed by the discovery at Mount Batten, Plymouth, of a mirror, with brooches similar to the largest of a group exhibited from Lancing, Sussex (Case A). It should be noted that in none of these cases had the body been cremated, and it seems that in the non-Belgic area of Britain the native population buried their dead unburnt, though the Roman fashion at this time was to deposit the ashes in cinerary urns. It will now be convenient to consider the contents of a cemetery that may with some confidence be referred to the Belgae, who are said by Caesar to have settled in Britain before his own time (p. 83), but who in the second century A. D. occupied what are now the counties of Somerset, Wilts., and Hants.

The most important of the Aylesford discoveries was made in 1886, when the removal of the surface soil revealed a pit-burial (fig. 92) containing the pail (*situla*), the flagon (*oenochoè*), the skillet of frying-pan shape (*patella*), and the three brooches (*fibulae*) exhibited in Cases 56, 57. All were of bronze, and lay mingled with calcined bones and fragments of pottery vases in a circular grave about $3\frac{1}{2}$ ft. deep, the bottom and side of which had been coated with a chalky compound. The pail contained burnt bones and the brooches, while the flagon and skillet lay outside it, as shown in fig. 92. Some of the accompanying earthenware vessels had been used as cinerary urns, and have since been restored.

The importance of this richly-furnished burial, in conjunction with others discovered on the site, was fully appreciated by Dr. Arthur Evans, who made investigations on the spot and published an elaborate account of the cemetery. The bronze vessels of the principal interment may first be dealt with, as affording the strongest evidence of intercourse with the Continent. Something has already been said (p. 29) with regard to the ancestry of the bronze-mounted bucket (fig. 93), and the development of its ornament (fig. 94) from the classical palmette has been shown above (p. 20). It consists of a framework of wooden staves bound with thin metal bands attached by rivets, each of the staves being 1·4 in. wide. The bands were three in

number, 2·7 in. wide, leaving two bare interstices ; and the total
height of the vessel was 10 in., the diameter being about half an
inch greater.   The hooped handle is of iron plated with bronze,
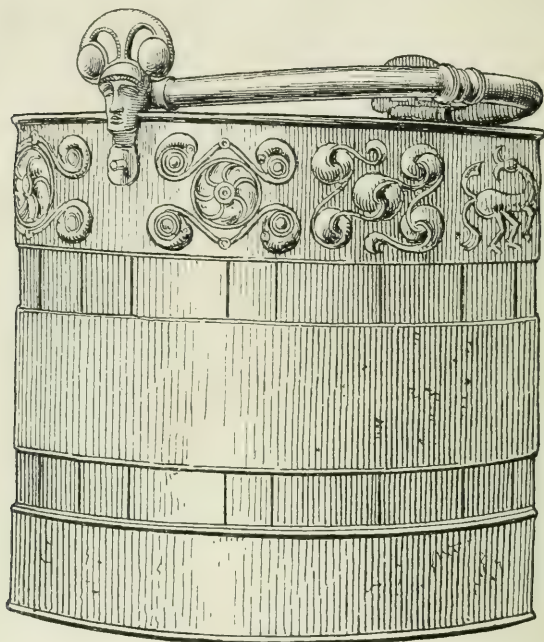


FIG. 93.—Bronze-mounted bucket, Aylesford.   (¼)

and is movable ; but the mode of attachment to the ornamental
plates on the brim is peculiar.   In the classical examples from
which it is evidently copied, the handles are double, and work



FIG. 94.—Embossed frieze of bucket, Aylesford.   (⅓)

in two round holes (fig. 24), which are here represented by the
circular bosses above the temples, the ends of the handle being
somewhat clumsily inserted behind the head.   The ornamental
bands are retained in a debased form (p. 29), but the Keltic

workman would be unequal to the task of reproducing the claw-feet.

The flagon found in the same grave is of Italo-Greek manu-facture, and not merely the barbarous imitation of a classical model. The beaked flagon (*Schnabelkanne*) of the Somme Bionne type (fig. 45) seems to have passed out of fashion about 300 B.C., giving place to flagons of the kind here represented; it is in-teresting to contrast the ornamentation below the handle of the later form (fig. 95) with the classical palmette which it is doubt-less intended to represent. In the extensive cemetery near Lake Maggiore, called San Bernardo, which contains no graves earlier than about 234 B.C., specimens of this type are common, and in one grave at least occurred with a skillet and brooch almost identical with those from Aylesford, together with Roman coins of 149–144 B.C. Though hundreds of similar flagons have been found at Pompeii, Dr. Willers re-marks on the absence of skillets there, and would refer our example to Upper Italy. regarding it as Gaulish work of the early second century B.C.

Nor is this the only parallel in the Ticino cemetery. A tankard with an open-work handle (like fig. 103), closely resembles the Aylesford specimen now restored (fig. 97), and was found in a grave with coins dating from 119–



Fig. 95.—Bronze jug, with detail. Aylesford. ($\frac{1}{4}$ & $\frac{1}{2}$)

114 B.C. Though the feet of the Aylesford brooches (fig. 96) are imperfect or wanting. there can be no doubt as to the close rela-tion between them and specimens from San Bernardo, another of which was found with a coin of 144 B.C. It would be rash to argue from these coincidences that the principal Aylesford burial dates from the middle of the second century B.C., especially as no instance of cremation was noticed at San Bernardo, and in the adjoining cemetery of Persona (dating between 89 B.C. and 80 A.D.) the practice was not universal. On these grounds we may date the introduction of cremation into this part of north Italy about 75 B.C. (though in other parts it was known from the third century, B.C.) ; and this well accords with the date proposed by Dr. Arthur Evans for the Aylesford burials. Here there were no unburnt burials, and the rite of cremation was

no doubt already firmly established in Kent as in north-east
France, but it is difficult to decide whether it first found favour
in the north or south of Europe (p. 75). If only cremated burials
of this class (as opposed to the Bronze-age urn-burials) could
be shown to date from the second century B.C. in north-west
Europe, there would be nothing to prevent our attributing the
Aylesford cemetery, or at least the principal burial, to some time
about 100 B.C.

The pottery found with the bronze vessels at Aylesford
evidently belongs to types well represented in the cemetery, and
may be included in a general description (p. 122). The three
brooches of bronze contained in the pail present some difficulties,
and all were unfortunately damaged. The largest is hard to
classify as the foot is wanting, and the form of the bow with
a collar near the foot is unusual. The other two are a pair, and
though the foot is wanting in both, the spreading head which
covers a quadruple coil is easily recognizable as a type common
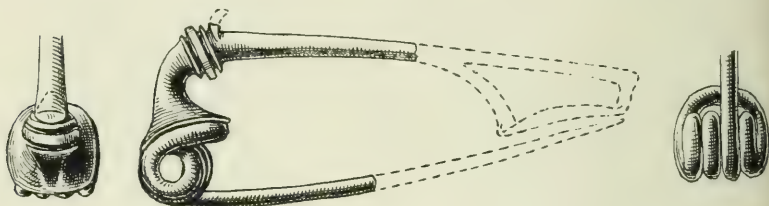


Fig. 96.—Bronze brooch, with details, Aylesford.   (¾)

in the third period of La Tène, and lasting down to the early
Empire. Specimens found at Gurina were assigned by Dr. Tischler
to the reign of Claudius (A.D. 41–54), but from internal evidence
it almost certainly arose at an earlier date, in direct imitation
of the characteristic La Tène II type. The moulded collar, below
which may be noticed the remains of a hooked projection supplied
in the illustration (fig. 96), is evidently a reminiscence of the band
which in the second century B.C. secured the tail of the brooch to
the middle of the bow (fig. 38). As the foot did not survive
in the Aylesford specimens, it is impossible to say whether it
was entirely open or partially filled with crescents or step-work
(as figs. 83, 109); but Dr. Evans' restoration may be relied upon
as more than probable.

Previous excavation on the same site had brought to light
another grave, which contained the tankard here exhibited
(fig. 97), and belonged to a group of burials to which the name
'family-circle' has been applied. Many graves were discovered

from time to time, and were described as round pits 2–3 ft. deep containing two or three urns each, and grouped in irregular



Fig. 97.—Bronze-mounted tankard, Aylesford. ($\frac{1}{4}$)
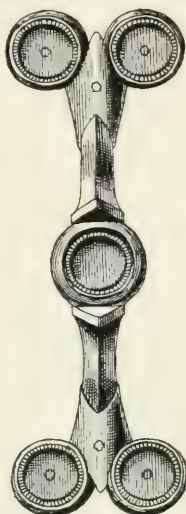


Fig. 98.—Handle of tankard, Aylesford. ($\frac{2}{3}$)

circles, perhaps containing contemporary burials of relatives. One such circle was excavated by Dr. Arthur Evans, and the
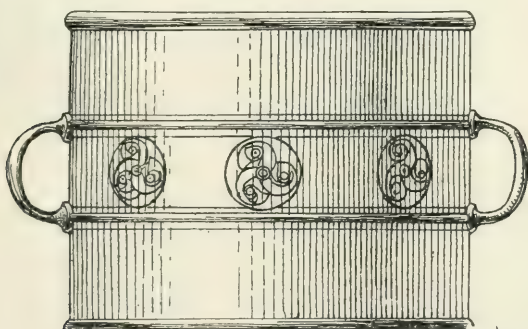


* Fig. 99.—Bronze-mounted tankard, Elveden, Suffolk. ($\frac{1}{4}$)

accompanying illustration (fig. 100) is borrowed from his account. There was no mound or other external indication of the inter-

ments, which may therefore be assigned to the class known
on the Continent as *Flachgräber* (surface-graves), as opposed to
those covered by a mound or barrow (*Hügelgräber*).

Most of the urns discovered in this cemetery are exhibited
on the top shelf of Cases 56–60, while others are preserved in the
Ashmolean Museum at Oxford, together with a compact mass
of eight bracelets of Kimmeridge shale, in the form of rings with
circular section and an outside diameter of $3\frac{3}{8}$ in. Several small
pits, 2 ft. in diameter at the mouth, and $1\frac{1}{2}$ ft. at the bottom,
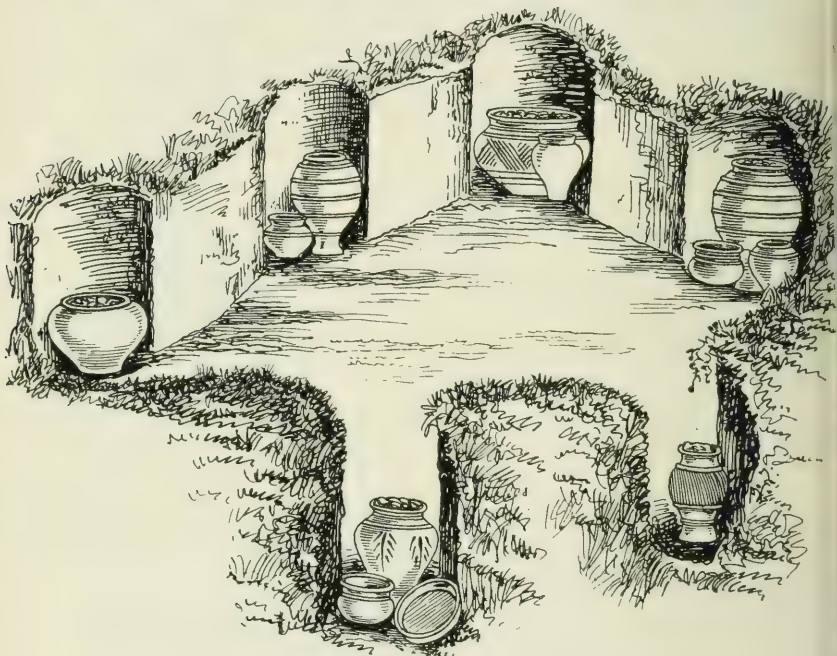


Fig. 100.—Circle of interments, Aylesford.

were found to contain charcoal and broken pottery like that used
for the urns, but no burnt bones. These pits may well have
been used as kilns for baking pottery made on the spot, and were
quite distinct from another circular pit 8 ft. in diameter and
12–13 ft. deep, which was entirely filled with animals' bones
much decayed.

Some of the best urns from the site were found either in
a large wooden tub or in the family-circle (fig. 100) to which it
belonged. Only iron mounts remained, consisting of two iron
ring-handles and part of a hoop with rivets; but these were

FIG. 101.—Typical vases of pottery, Aylesford.

sufficient to show that the diameter was about 40 in. Besides several cinerary urns, the vessel contained a quantity of flint flakes and scrapers, which had evidently been thrown in purposely, as was the case in other graves of the cemetery. The cinerary urns and associated vessels of pottery found in the graves were all made on the wheel, but varied considerably in shape, size, and colour (fig. 101).

The 'Aylesford type' of pottery may be regarded as a fabric of much finer quality than the Bronze-age ware of this country. Though mica and minute grains of quartz may sometimes be detected, the paste is mostly free from the grit and chalky particles that form so characteristic a feature of the Barrow pottery. The cinerary urns are of a light-brown substance, the surface being coloured with a black lustrous pigment formed probably of finely powdered charcoal, but now for the most part worn off. The vessels are also well baked and elegantly moulded, a few being of a pale brick colour resembling that of some Roman specimens. An important feature is the well-turned pedestal on many of the cinerary urns, and it should be remarked that several urns found in Essex have the pedestal hollow as in the Marne district (fig. 57), while the Aylesford specimens have a solid and almost flat base, the same outline being retained. Raised ribs or cordons arranged horizontally are found on the majority, and are further defined by lateral grooves, dividing the body into zones that are sometimes themselves decorated with linear ornament. The design in some cases consists of finely incised lines or comb-markings; in others a blunt point is drawn over the soft surface of the clay, producing a polished line. All show a distinct advance on the rough hand-made ware of the British Bronze age, specimens of which were indeed found in close proximity to certain cist-burials at Aylesford, but were not all excavated with sufficient care to show the character of the interments to which they doubtless belonged. Three cists formed of travertine and sandstone slabs were found in a row on the edge of the cemetery, each containing a contracted skeleton. One of the bodies was that of a woman about twenty years of age and 5 ft. 1 in. in stature, with a cephalic index of 65, consequently dolichocephalic in a marked degree. Two gold coins also found on the western limit of the cemetery are noticed later (p. 153).

Hod Hill is one of the most imposing Dorset heights that were crowned with earthworks for the protection of the inhabitants during the Bronze, and possibly, in some cases, the Neolithic period. The summit of the hill is an irregular plateau more than 50 acres in extent, and the whole area is enclosed in a double line of ramparts with corresponding ditches (fig. 102). On the west and south the hill rises almost perpendicularly about 400 ft. above the river Stour, while the other sides are

protected by earthworks, the inner ring rising about 60 ft. and the outer about 30 ft. above their respective fosses. A flanking entrance gave access on the north-east, and there are minor openings in the works which may not all be original. In the north-west angle was the later Roman encampment, which only needed fresh defences on the east and south. These, however, were of very moderate strength, consisting merely of a double ditch 5 ft. or 6 ft.
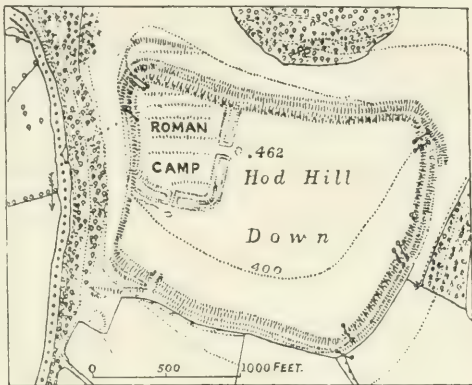


Fig. 102.—Earthworks on Hod Hill, Dorset.

deep, with a slightly raised platform running along the centre. The two entrances were protected by slight breastworks, and the interior measured about 200 yards by 180 yards.

There are abundant traces of the native occupation of this stronghold, before the Romans under Vespasian reached this part of the country about 43 A.D. The entire area is thickly covered with artificial depressions marking the sites of hut-dwellings. Most of these are circular, with a diameter of 10-15 ft., and are often defined by a slight bank. Others have been noticed on the hill outside the enclosure, and some had evidently been cut through by the builders of the camp. The site was clearly occupied at a remote date, but the objects recovered in great quantity from the soil comprise few that can with certainty be referred to the period before the introduction of iron.

A selection from the series collected by the late Mr. Durden (of Blandford) is exhibited in Case E, the earliest specimens



Fig. 103.—Bronze tankard-handle, Hod Hill. ($\frac{1}{2}$)

being on the left. The enamelled studs clearly belong to the same culture as that revealed in the extensive excavations of Bibracte

(Mont Beuvray, Dépt. Saône-et-Loire), and though Hod Hill yields Roman antiquities of a date later than anything on the Gaulish site (p. 91), the relics show a remarkable similarity. Most of the British specimens from the site are mounted on one board, and include two handles (fig. 103) that may have belonged to a tankard (as fig. 97) or some larger vessel of that kind. The latest La Tène brooch is also represented, the catch plate being solid. Later forms (as fig. 109) are evidently influenced by Roman models, and have a shield for the broad spiral spring at the head, and open-work catch-plate with step-pattern. Special attention must be drawn to an Italian type (fig. 104), with boat-shaped bow and long foot : one almost identical is said to have been found in Cumberland. The sword here shown with daggers and scabbard-mounts, scales of armour and cheek-pieces of helmets, shows the native adaptation of the Roman model, and should be compared with that from Cotterdale (see also Case D). A semi-circular chape on the same board, evidently belonging to the Roman short-sword, throws some light on the date of the Polden Hill hoard (p. 128). A series of bone objects, including pins, bodkins, and pendants, should be compared with that from Spettisbury (below). A large quantity of iron tools, lance-heads, horse-furniture, and nails were collected on the site, both within and without the enclosure, but only a small selection can be exhibited.
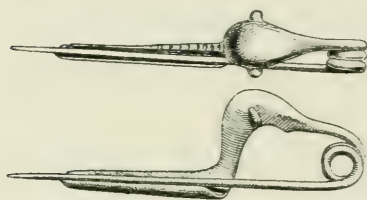


FIG. 104.—Brooch of Italian type, Hod Hill.   $\frac{2}{3}$.

The Roman remains need not be particularized here, but all may well have belonged to the first century of our era: representative brooches may be seen in this Case.

In 1857, during the construction of the railway between Wimborne and Blandford, Dorset, an earthwork now called Crawford Castle was cut through, close to the village of Spettisbury. The site for the stronghold had been well chosen, and the whole area surrounded by a moat. At the north corner a pit was discovered about 35 ft. long and 15 ft. wide, the depth varying from 4 ft. to 10 ft., and within had been placed irregularly eighty or ninety skeletons, among which were found several objects of interest. A sword-blade retained part of its iron scabbard, and is said to have resembled in form one from the Thames, originally in the collection of Lord Londesborough (Case 56). There were also several iron currency-bars of a type commonly found in the south of England, and two small bars of the same general form, but evidently intended to represent half the value of the commoner

size (p. 150). A small bronze brooch, clearly derived from the type of La Tène II, but with the spiral spring in T-form, has an exterior chord (p. 42). The series also includes a cauldron (fig. 105) of thin bronze with an iron rim, iron sickle-shaped keys (as at Tiefenau, Case 78), lance-heads (some with split sockets), and the bronze chape and scabbard-edging of a Roman short-sword, as at Hod Hill (Case E), the last affording an indication of date.

Most of the bones were in a very friable condition, but two skulls were recovered entire and submitted to Prof. Quekett. One, that of a young man, had an index of 80 ; the other, probably belonging to a woman, was 77·2 ; both may therefore be classed as mesaticephalic.

The Glastonbury Lake-village is of primary importance in the
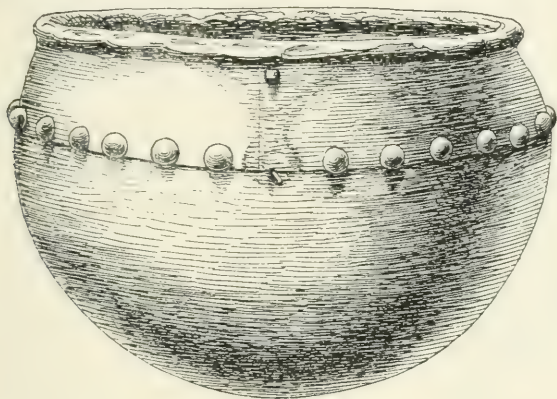


Fig. 105 — Bronze cauldron, Spettisbury, Dorset. (¼)

history of pre-Roman Britain, giving as it does a vivid picture of native life before the arts of Rome penetrated to the west of England. The village is of the crannog type, the habitable area of about 3½ acres, originally in the middle of a mere, including sixty or seventy dwellings which could be traced by slight mounds in a meadow one mile north of the town. The excavation of the site has extended over several years, and a large collection of miscellaneous relics amassed, the absence of distinctively Roman specimens being well established, though there is little to show how long before our era the first settlement in this area had been made. There was, however, time enough for 5 ft. of peat to accumulate in some parts during the occupation. Vertical cuttings through the mounds revealed a succession of well-defined strata of clay, charcoal, ashes, and decayed wood ; but the most interest-

ing feature was the series of hearthstones within the hut-circle, showing successive occupation of the same spot, sometimes as many as four different floor-levels of compressed clay being noticed one above the other (fig. 106).    The huts were mostly of circular
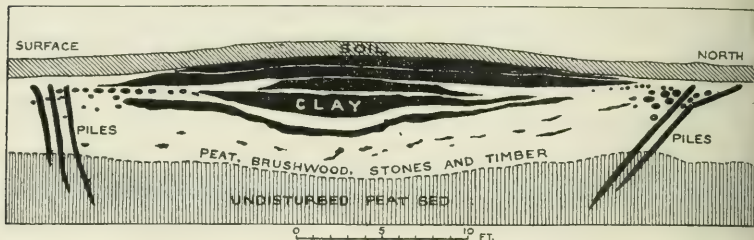


Fig. 106.—Vertical section of hut-circle, Glastonbury, Som.

plan, 18–35 ft. in diameter, the walls being constructed of wattle-and-daub, and supported by posts one foot apart which, with a centre-post, carried a thatched roof.    Each was surrounded by piles to increase the stability of the clay floor which rested on a regular layer of round timbers, laid close together on brush-
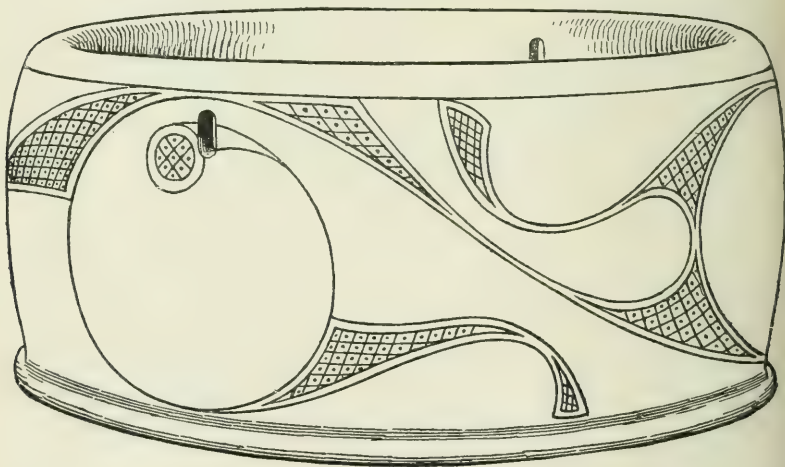


Fig 107.—Wooden bowl (restored), Glastonbury.   ($\frac{1}{3}$)

wood, as in the Swiss lake-dwellings.    These timbers extended under several hut-sites, and the whole village was surrounded by artificial ground strengthened with palisading and hurdles.

The absence of bronze implements shows that the earliest settle-ment dates from the Iron age, and most of the brooches are of

La Tène III type, with open or solid catch-plate : a few specimens resembling in outline La Tène II type are compound (p. 36), and must be referred to the next stage. A few penannular specimens, common in the Roman period, were also discovered. Several remarkable objects of wood have been recovered, and a restoration of a large bowl (fig. 107) cut from the solid and gracefully ornamented on the outside, is here exhibited. There was also the nave of a wheel, 14 in. long, made on the lathe, which held twelve spokes 12 in. long : a ladder, 7 ft. long, and a dug-out canoe 18 ft. long, should also be mentioned, as well as some framework supposed to have formed part of a loom (as fig. 128). A great variety of bone combs for pressing home the weft (p. 140) were also found. The pottery is of exceptional interest, many pieces being ornamented with characteristic incised patterns (fig. 108) : some of it was hand-made, but many vessels were evidently made on the wheel. A large number of well-made stone querns have
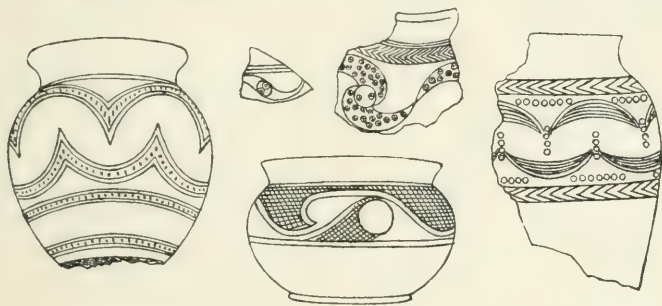


*Fig. 108.—Patterns on pottery, Glastonbury.

been recovered, as at Hunsbury (p. 130) ; and the site has proved very prolific in pellets for slings, in shape like the Roman *glandes* of lead but made of clay, which was either baked or unbaked. These were, no doubt, used in the chase and not in warfare, as weapons are extremely scarce here, only a few daggers having been found. A bronze mirror, found with tweezers, antimony, and rouge, shows a somewhat advanced stage of civilization, and several crucibles show that metallurgy was practised on the spot. The inhabitants evidently grew wheat, and had sheep, cattle of the small breed known as *Bos longifrons*, pigs, horses, and dogs ; but they also had for food the stag, roedeer, beaver, and otter of the district. The absence of British coins (with a single exception) can be to some extent explained by the presence of two iron currency-bars, belonging to different denominations (p. 149).

Perhaps the finest series of Early-British antiquities in existence was discovered in 1800 near the top of the Polden Hills, above

Edington, Somerset. They were scattered by the plough, but had evidently been deposited together in a round hole about the size of a bushel measure, the bottom having been lined with burnt clay. About the same date a large number of coin-moulds and a tessellated pavement were found at Edington. The moulds were for reproducing coins of the Emperors, from Septimius Severus (193–211 A. D.) to Maximus (236–238), but there is no necessary connexion between the discoveries in this district.

No less than fourteen bronze bridle-bits of excellent work were included in this hoard : they varied in size, but all were of the same style, some having circular sockets, which were filled with enamel, as at Stanwick. Some striking specimens of enamel decoration were also found, in which the red retains much of its brilliancy, though in places turned green by oxidation. In one case the bronze is still of a golden colour, while in the best
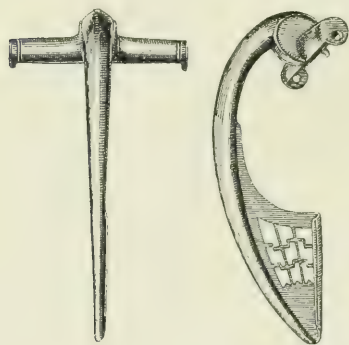


FIG. 109.—Bronze brooch, Polden Hill, Som. (½)

example (plate v, no. 3) the ground has been blackened, the surface being exceptionally lustrous. There are five enamelled cheek-pieces for the bridle, and two iron specimens, as well as an engraved and embossed bronze that may have been a horse's frontal, like one from Pompeii. An iron torc, bound spirally with bronze wire, also calls for remark, as iron specimens are extremely rare in this country (p. 138) ; and two stout armlets of bronze with overlapping ends are not unlike specimens found in the north of Europe during the earliest Teutonic period : one in the Morel Collection (Case P) bears a basket-shaped pendant. It is significant also that the three bronze shield-bosses, though superficially resembling a Roman example from Kirkham in Case D, are more closely allied to those from Thorsbjerg Moss, Flensborg, which can be approximately dated by coins, about 69–194 A. D.

The semicircular sword-chape of bronze also has a Roman look (specimens in Case D), and the three brooches found can also be matched in Case A. The best preserved has a cylindrical cover for the spiral spring at the head, and an open-work foot with a characteristic step-pattern (fig. 109). Lastly, a peculiar bronze with conical centre, from which radiate three (or four) stems ending in a ring, seems to be derived from a well-known but unexplained pattern common in Italy, in which the centre consists of tapering spikes separated from each other by equal spaces, and

a loop on two sides. Italian specimens with the spikes coalescing are extant, and the grooves on the Polden Hill example may represent the original interstices. These bronzes are generally, but incorrectly, termed ' bow-pullers ': they seem to have been connected in some way with the horse, and some have been found with iron chains passing through the loops and under the cone. The smaller size of the British example may be due to its manufacture for a pony (*Bronze Age Guide*, p. 150).

An important series of bronzes was found fifty years ago in draining a field at Westhall, a small village about three miles north-east of Halesworth, Suffolk. The soil is here a stiff clay, but a space of about two acres had, after ploughing, a much darker appearance than the rest. At a depth between $1\frac{1}{2}$ and 3 ft. the ground had been blackened by fire, and contained much charcoal, as well as pottery fragments in great variety, but no complete vessels could be found. A solitary piece of a plain ' Samian ' patera was turned up, but not in immediate association with the bronzes, which had been packed in a thin bronze vessel in the centre of the blackened area. The design on the cover of the bronze vessel has been restored from the fragments, and consists of a cruciform pattern in *repoussé* work, with palm-branches or similar design between the arms. The enamelled horse-trappings (probably ' terrets ' for the reins) from this site are exceptionally fine, and some still retain the vivid red of the enamel. Six bronze terminals, with remains of iron inside, were probably the heads of linch-pins, like those at Stanwick (fig. 116). Some are per-



Fig. 110.—Embossed disc, Westhall, Suffolk. ($\frac{2}{3}$)

forated, and others ornamented at the bottom, so that they cannot have been butts of spears. The use of a number of polished pebbles from this site is unexplained, but a clue to the date is afforded by a bronze pear-shaped lamp of Roman work, with a crescent above the ring handle, as well as by a bronze coin of Faustina the Elder (138–141 A.D.). It is interesting to find here a small bronze disc embossed with an animal form (fig. 110) closely related to those on the Aylesford bucket below, and on Gaulish coins of the period.

The series from Hunsbury is hardly representative of the ex-tensive finds on that site recorded by the late Sir Henry Dryden: the bulk of the collection is in Northampton Museum. Here are socketed spear-heads, knives, daggers, the grip of a sword, bone cheek-pieces of bridle-bits, spindle-whorls, and a comb used in weaving (as fig. 131); but mention must also be made of the more characteristic objects that serve to date the occupation of this stronghold by the early Britons. Danes' Camp, another name for Hunsbury, has as little historical foundation as Danes' Graves

in Yorkshire, and it was probably about 1,000 years before the arrival of the Norsemen that the site was inhabited: the ramparts may have been thrown up then, or at some earlier date in the Bronze period. The camp is about two miles south-west of North-ampton, and the ancient road called Banbury Lane passes within 300 yards of it on the north-west: the highest point is nearly 350 ft. above the sea. The enclosed area of four acres is approxi-mately oval in shape, the longest diameter being 560 ft. The defence consisted of one fosse only, 50 ft. to 65 ft. from edge to edge, the height of the scarp from the bottom of the fosse being about 15 ft., but originally more than 20 ft. Of the three entrances two are probably original, and suggest that the road that now skirts the camp on the south once passed through the centre. Ironstone diggings revealed over 300 circular refuse-pits scattered over the entire area, about 6 ft. deep and 5 ft. to 10 ft. in diameter. They were full of black mould, and contained the majority of relics. The most remarkable of these was an iron scabbard plated with bronze which is ornamented in characteristic style, the chape resembling that of the Bugthorpe example (fig. 86). The length is $30\frac{1}{4}$ in., while that of a plainer scabbard is $26\frac{3}{4}$ in., the sword belonging to the latter having a total length of 32 in. Of the brooches found, one very closely resembles fig. 77, but the foot is missing and the ornamentation of the bow is superior. Another is of La Tène III type (as fig. 39), and two others, though retaining traces of earlier forms, probably date from the early Empire. The pottery is instructive, with scroll designs incised in the unbaked clay, as at Yarnton (fig. 137) : a remarkable feature is the rosette formed of dots which occurs within the bulbous loops, and also on a remarkable gilt brooch found at Tre'r Ceiri, Carnarvonshire, in association with Roman melon-shaped beads. Several pieces of horse-furniture, including bridle-bits of iron, were found, also spear-heads, bill-hooks, saws (as at Glastonbury), and loom-weights (as fig. 129), but there were no less than 150 quern-stones of grit in the form of truncated cones, well made with sockets for a single handle. One of the six skulls recovered had in it three holes drilled near the centre, suggesting a practice also exemplified in Gaul (fig. 52) at a somewhat earlier period. This was a male skull of mesaticephalic type (cephalic index 77), and closely resembled that of a young subject from the same site with an index of 76, while a third skull, of an adult male, must be classed as dolichocephalic (index 72).

The remarkable British antiquities from Stanwick were dis-covered about 1844, and subsequently presented to the nation by Lord Prudhoe (fourth Duke of Northumberland). Stanwick lies near the river Tees, about seven miles north of Richmond, in the North Riding of Yorkshire, and it was within extensive earth-works, which enclose nearly 1,000 acres, that the discovery was
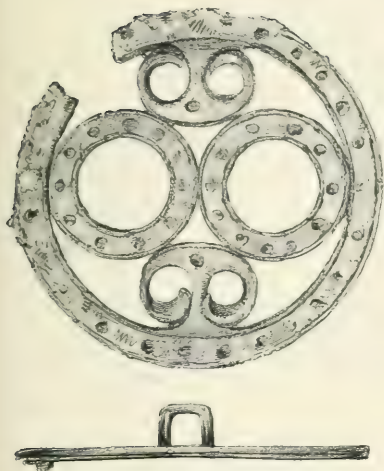
FIG. 111.—Bronze open-work ring,
Stanwick, N. R. Yorks. ($\frac{2}{3}$)
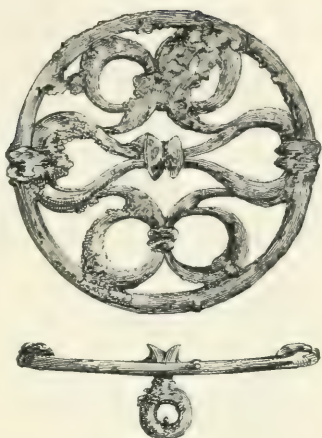


FIG. 112.—Bronze open-work ring.
Stanwick. ($\frac{1}{2}$)
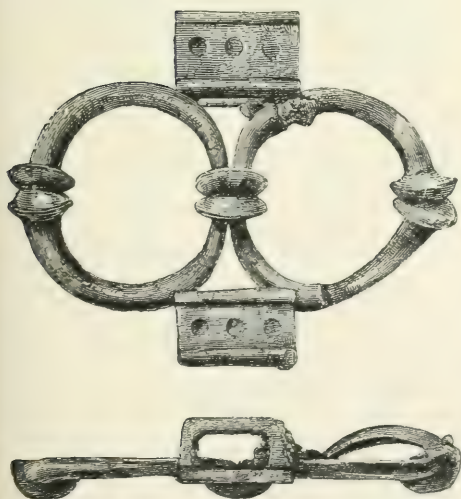


FIG. 113.—Double bronze ring, Stanwick. ($\frac{1}{2}$)



FIG. 114.—Bronze open-work
mount, Stanwick. ($\frac{2}{3}$)

made, in a pit about 5 ft. from the surface. In the immediate
neighbourhood were found large iron hoops that were doubtless
tires of chariot-wheels such as have been found elsewhere in the
county ; but it was remarked that neither Roman coins nor
pottery were found within the earthworks, though they are only
about a mile west of the great Roman road called Ermine Street.

The bulk of this find evidently consists of horse-trappings, the
'terrets' with lip-ornament (fig. 115) being specially noticeable:
some have circular sockets that were no doubt once filled with
enamel. Other rings with open-work ornament exhibit both S
and C-scrolls (figs. 114, 111), also a device resembling a ribbon
tied in a bow (fig. 112). Cheek-pieces for the bridle occur in
more than one form, but are not so elaborate as the Polden Hill
specimens, while the linch-pins (fig. 116) are here complete enough
to show their original length and character : some have a loop at the
top, the others a ferrule-shape terminal of bronze, like those found
at Westhall and Lisnacroghera. As in the Homeric chariot, these
may have been inserted vertically in the front end of the pole to
hold the ring which supported the yoke ; and their decoration
would there be seen to advantage. Indeed, the poet Propertius,
who was born about 50 B.C., specially mentions the ornamented
yokes of British chariots. Several bronze rings included in this
find bear some resemblance to Somme Bionne examples (Case 70),
and may, like them, have been fixed on the chariot-pole, to
strengthen or adorn it. It should, however, be noted that linch-
pins for chariot-wheels have been found in position, as at La Gorge
Meillet (p. 49) where the central part of the stem was also of iron.
as at Stanwick.

There are small metal bowls and embossed bronze from Stan-
wick that show considerable technical skill, but as a representa-
tion of the human face the fragment here illustrated (fig. 120)
must be pronounced a failure. Further, there is a small fragment
of shield-boss of the Polden Hill form, unornamented, but with
a rivet in position on the edge ; and the fragments of chain-mail
evidently belonged to a warrior's cuirass.

An interesting suggestion as to the use of certain lyre-shaped
ornaments (fig. 117) has been recently made by M. Déchelette. Two
specimens had been placed in the grave of a soldier at Chassenard,
Dépt. Allier, and on the perfect one there remained a patch of
chain-mail, attached by a stud at the base. This was a burial
after cremation, and the calcined bones were placed in a *dolium*
of grey ware, the date being determined from various considera-
tions as about 40 A.D. Among other objects in the grave were
a rectangular buckle-plate in relief resembling some of silver from
Hod Hill (Case E), a hinged collar of flat section, and an iron
mask which had evidently served as the vizor of a helmet (cf. the
Ribchester helmet in *Central Saloon*). The Chassenard specimen
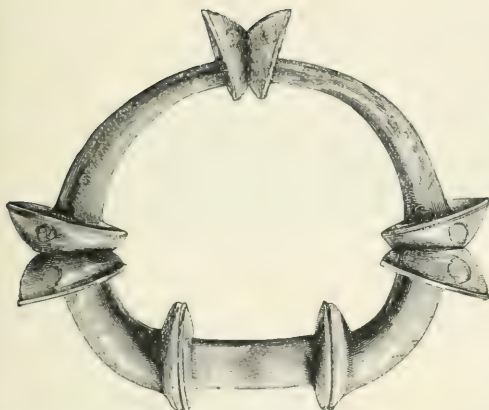
Fig. 115.—Bronze 'terret' for reins, Stanwick. (⅔)



Fig. 117.—Mount of chain-mail cuirass,
Stanwick. (½)



Fig. 116.—Bronze and iron
linch-pin, Stanwick. (⅔)

had a camail of chain-mail attached, and certain pieces of mail with rosettes (as fig. 118) were found at Stanwick. Livy records that in the year 293 B.C. the consul, Papirius Cursor, bestowed
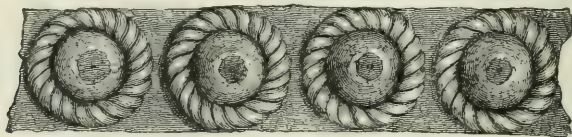


FIG. 118.—Bronze band with rosettes, Stanwick.  (¼)

the decoration called the *corniculum* on his cavalry at Aquilonia, and it is clear from Suetonius that it was still in use towards the



FIG. 119.—Harness ring, Stanwick.  (⅕)



FIG. 120.—Bronze embossed with mask, Stanwick.  (⅔)

end of the Republic, but there is no literary evidence as to the precise manner in which it was worn. Several monuments show



FIG. 121.—Buckle engraved with peacocks, Stanwick.  (⅔)

that in imperial times torcs and *phalerae* were worn on the cuirass; and it is fairly certain that the Chassenard burial is that of a Roman legionary of the time of Caligula.

It is surprising to find at that date an unmistakable piece of

oriental bronze work at Stanwick, for such the buckle illustrated (fig. 121) must be. On the bronze covering of the strap are engraved two peacocks with a sacred tree between them, and the horses' heads on the bow remind us forcibly of Persepolitan capitals. This example seems quite isolated in Britain, and is much earlier than the date usually assigned to representations of the pea- cock, common enough after the Constantine period. This buckle, perhaps with the other without the 'strap,' was con- ceivably brought to Britain by some legionary who had served in the East, and the same mode of transport would explain the presence of a British enamelled 'terret' in the Fayûm (p. 81).
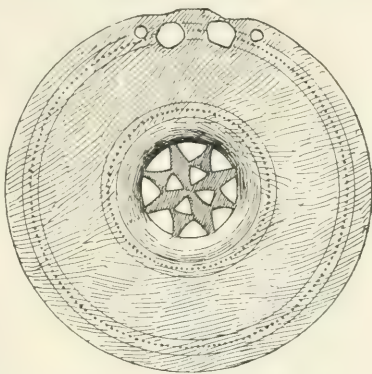


Fig. 122.—Open-work bronze disc, Thames at Hammersmith. ($\frac{2}{3}$)

A comparatively early date is indicated for three bronze discs
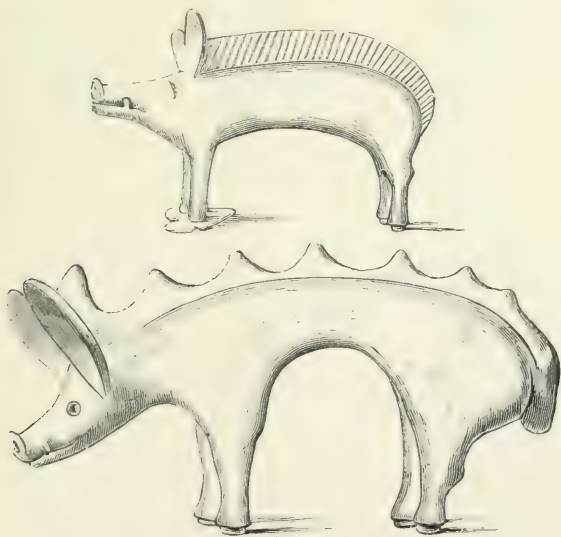


Fig. 123.—Bronze boars, Hounslow, Middlesex. ($\frac{1}{1}$)

from the Thames (fig. 122), resembling in style those from Somme Bionne (plate III); and pins (fig. 142) from the same site are, no

doubt, contemporary. The boar has been already mentioned in connexion with the Witham shield, which once had a bronze badge of that animal affixed to the front by rivets; and a series of bronze figures in the round are here shown from Hounslow (fig. 123). They were found in the same field as some implements of the Bronze age, but not in association, and include three boars and two other nondescript animals, one with a loop for suspension: it is possible that some, like that from Guilden Morden, were crests of helmets. The boar frequently occurs on British and Gaulish
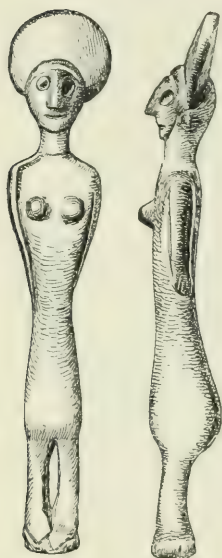


Fig. 124.—Bronze
statuette,
Aust-on-Severn,
Gloucs. (½)
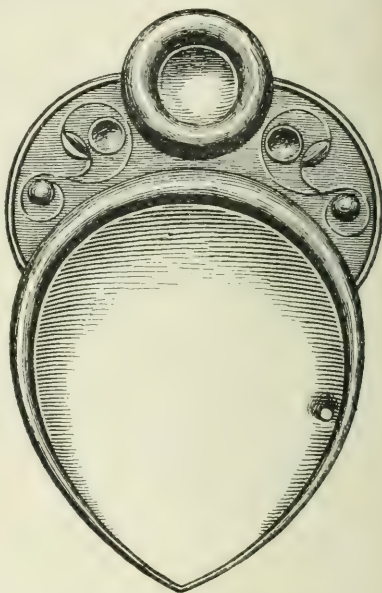
Fig. 125.—Bronze 'spoon,' City of
London. (⅔)

coins of the period, and examples have been found as far off as Gurina (p. 75) and Transylvania. In the same field at Hounslow was found the bronze wheel with four spokes and a diameter of 1½ in. like another from Colchester. A wheel of the same character belongs to the Stanwick find, but has a rectangular loop at the back; and all may have been connected with sun-worship. It was more probably as a religious symbol than as a survival of the chariot wheel (p. 152) or a form of currency, that the wheel occurs on the coinage of Gaul and Britain (plate vii, nos. 5, 13).

The bronze statuette (fig. 124) found at the base of the cliffs at

Aust-on-Severn is of exceptional interest. It represents a female
figure, probably a goddess, with a peculiar crescent-shaped head-
dress seen on the Spanish example (fig. 63) to which it bears
a close resemblance in form and style. In one of the eye sockets
remains a glass bead; and sockets at the ears were probably filled
in the same way. The oxidation has given a reddish tinge to
some parts of the surface, and there are signs that iron pins,
for supporting the figure on a plinth, have been inserted in
the feet. The second statuette from Spain shows still ruder
manufacture, but the features are executed in the same style:
and it is interesting to note that among other figures found at
Aust was one of a male divinity, bearing the ram's horns usually
associated with Jupiter Ammon. It is quite conceivable that the
deposit to which the two British specimens belonged, was made
by Phoenician traders to our shores; but the find is now dispersed,
and no complete record of the discovery exists.

Besides the specimen illustrated (fig. 125), there are in the
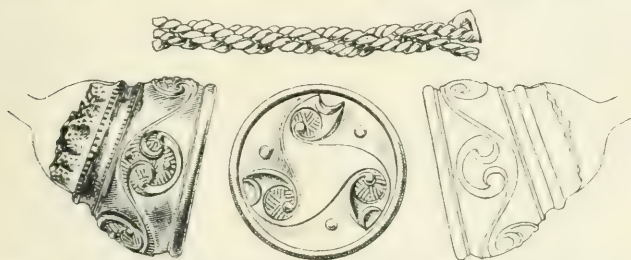


Fig. 126.— Portions of gold torc, with details, Clevedon, Som. (⅔)

Collection three other spoon-shaped bronzes, the use of which
has not been explained: one is from Thames St., London, and
a pair from Crosby Ravensworth, Westmoreland. Fourteen are
known from the British isles, and they are generally found in
pairs, often engraved with the basket-pattern (p. 103). Some have
a cross in the bowl, others a perforation, always on the same edge
of the bowl. A pair was recently found, one on either side of
the skull, in a burial at Deal, but little is known of the other
discoveries.

Further discoveries of torcs in association with datable objects
must be made in the British Isles before a definite chronological
sequence can be formulated; but the affinities of those in the
Collection and a few others may be briefly indicated. Two bronze
terminals from Colchester belonged to a specimen of Gaulish
type (fig. 51, no. 10) no doubt an importation: part of a gilt
torc from Slay Hill Saltings on the Medway near Upchurch
(Case A, *Central Saloon*) seems to be a native copy of the same

type, and was found with Roman finger-rings, a coin of Aurelius (161–180), and a plain silver collar which agrees well with that found in the Polden Hill hoard, except that the latter is wound round with bronze wire. Perhaps an earlier native type is that exemplified at Rudbaxton, Pembrokeshire, where two complete iron rings were found with a model hand of the same metal, probably of a votive character. Another iron torc was found



FIG. 127.—Bronze collar, Isle of Portland, Dorset. ($\frac{1}{2}$)

on the neck of a skeleton at Arras, and others appear to have been found at Ham Hill, Somerset, and Dorchester, Dorset.

The fragments of a remarkable gold torc from Somerset (fig. 126) are best referred to a Gaulish prototype (fig. 51, no. 1), but it is at present impossible to date the British example with precision. The terminals are hollow, and seem out of proportion to the hoop of three strands; while the basket-work design included in the ornamentation is suggestive of the bronze mirrors (fig. 91) and other objects (fig. 86) found in south Britain.

There is another series, made on different lines, of which an early specimen is a bronze penannular collar from Greenhill, Weymouth, its flat terminals set with small glass pastes. Similar

settings are found on that from Trenoweth, Cornwall, which has the ring complete and is lined with lead ; while a later development seems to be the hinged collar (fig. 127) found in a grave with a 'Samian' bowl in the Isle of Portland. This is practically identical with one from Stitchel, Roxburghshire, and both can hardly be earlier than 100 A.D.

Spindle-whorls are among the commonest objects belonging to the Early Iron age in this and other countries, though in the north of Europe they are seldom found in association with remains of the Bronze period. This is one of several indications that the arts of civilization spread but slowly from the great centres of European culture in the Mediterranean. Before being
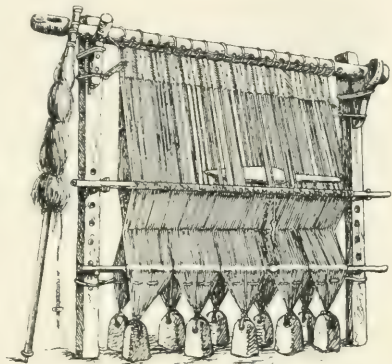


*Fig. 128.—Primitive loom, with weights, distaff, and spindle.

woven into cloth, thread must be spun from wool, flax, or other fibrous material which is placed on a distaff. This is seen leaning against the loom in the illustration (fig. 128), and from it hangs by a thread the spindle, which consists of a wooden rod about 9 in. long (Case B), rounded and tapering towards the ends. At the top is a notch in which the yarn is secured during the operation of spinning, and somewhat below the middle is the whorl, a perforated disc of stone or other heavy substance to give momentum and steadiness to the spindle when it is rotated by the spinner. The process was subsequently superseded by the spinning-wheel, but in early times the distaff was held under the left arm of the operator, the spindle twirled between the fingers of the right hand and the fibre drawn from the distaff in a uniform strand between the fingers of both hands, being twisted at the same time into yarn. Before the spindle touches the ground, the thread is wound



Fig. 129.—Clay loom-weight, Brooke, Norfolk. (⅓)

round it and caught in the notch ; and when, after a number of such lengths have been wound, the spindle is full, it is laid aside for the weaver and replaced by another. The spindle being generally of wood is comparatively scarce, but large numbers of whorls have been found on most ancient sites, and are some-

times elaborately ornamented.  Examples from Hod Hill and Glastonbury are shown in Case E.  Loom-weights of baked clay or stone were hung on the ends of the warp-threads to provide the necessary tension (fig. 128).  The triangular pattern (fig. 129), with two or three perforations across the corners, is not uncommon in England, but most are four-sided, tapering towards the top (fig. 130).



Fig. 130.—Clay loom-weight, Lakenheath, Suffolk.  ($\frac{1}{6}$)

The bone hand-comb, used for beating in the weft on the loom, is also a common relic on early British sites, and is well represented in the collection.  Two of the usual types are illustrated (fig. 131), with oblong and circular heads respectively : the ends are sometimes pointed or rounded off without expansion, and the ornamentation is of a primitive description consisting of lines or groups of ring-and-dot pattern and plain double lines arranged in zigzags or lozenges.  An exceptionally long specimen ($8\frac{1}{2}$ in.) is shown from Glastonbury, and one found in a weem (earth-house) near Kirkwall, Orkney, has the teeth of unequal lengths.

A group of pottery is exhibited in Case 59, including various types.  The original home of the pedestalled urn has already been indicated (p. 26), and it is important to bear in mind that in Kent and Essex, the two counties to which this type is almost entirely confined, such vessels were used either to contain the ashes of the dead or in association with such burials after cremation.  In this respect there is an analogy between this series and the numerous sepulchral urns and vases of the British Bronze age exhibited in the adjoining *Prehistoric Room*.  In the Iron age, as well as in the preceding period, there were, however, certain forms that seem to have been purely domestic ; and in certain districts of south Britain



Nether Wallop, Hants.          Haslingfield, Cambs.

Fig. 131.—Bone hand-combs for weaving.  ($\frac{1}{2}$)

a well-defined type is fairly common. It consists of a tapering
body with rounded shoulder and slight rim, with a pair of stout
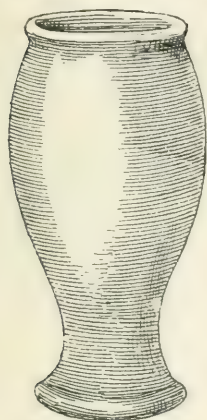


*Fig. 132.—Cinerary
urn, Great Ches-
terford. ($\frac{1}{5}$)



*Fig. 133.—Cordoned urn, Brain-
tree, Essex. ($\frac{1}{6}$)
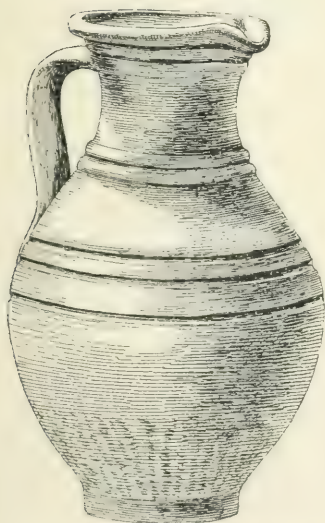


Fig. 134.—Pottery jug. Malvern
Hills, Worcs. ($\frac{1}{3}$)
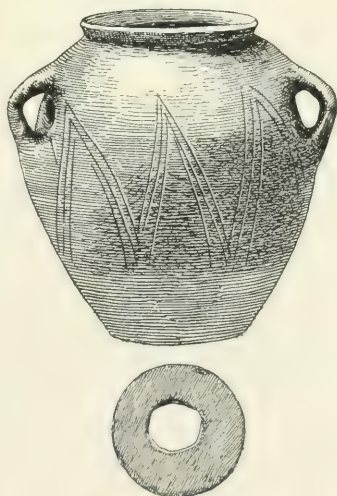


Fig. 135.—Vase with perforated
base, Fordingbridge, Hants. ($\frac{1}{4}$)

ring handles, which either stand out boldly from the shoulder or are placed over indentations which allow a passage for the finger.
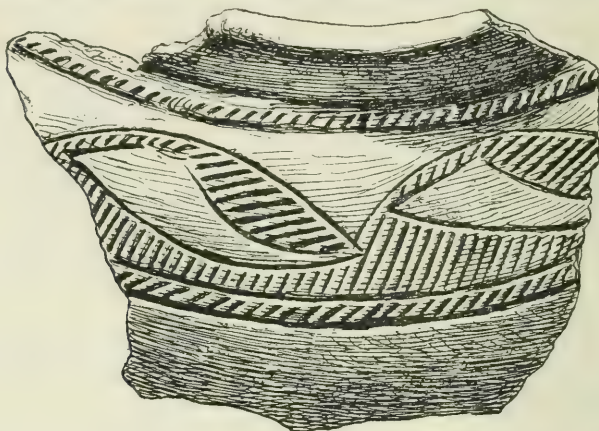


Fig. 136.—Pottery fragment, Kent's Cavern, Torquay, Devon. ($\frac{2}{5}$)

The surface is smooth and the paste fairly homogeneous, with a brownish-black surface, but most of the pottery was handmade,



Fig. 137.—Pottery fragment, Yarnton, Oxon. ($\frac{2}{3}$)

and not produced on the potter's wheel. A peculiar feature, to be observed on several pieces in the Collection, is the perforation of the base, and it has been plausibly suggested that such vessels were used for draining honeycomb, the honey passing out through one or more holes into another vessel below. Examples of this type have been found in Hants (fig. 135), Dorset, Wilts., and Kent (Ramsgate); and can be readily distinguished from more advanced specimens that betray contact with Roman civilization. The ware is thin and hardbaked, varying in colour, and mostly of elegant profile.

The series from North Britain is small, but comprises certain

objects of exceptional interest and value. The pair of enamelled bronzes, in the form of armlets, from Pitkelloney, near Drummond Castle, Perthshire, may be regarded as typical of a group found (with a single exception) on what is now Scottish soil. A considerable number exist, nearly all being from beyond the Firth of Forth, and they have been divided into two classes, according as the bands of which they are composed run horizontally, or in a spiral curve ending abruptly (as fig. 138). The two exhibited weigh 3 lb. $13\frac{1}{2}$ oz. and 3 lb. 10 oz. respectively, with an internal diameter of $4\frac{1}{2}$ in., and are much too heavy and unwieldy to have been worn habitually on the upper arm ; but as objects of parade they would have served as admirable examples of Early-British art. The decoration has no early features (such as the remnants of the palmette seen on the Witham shield), but
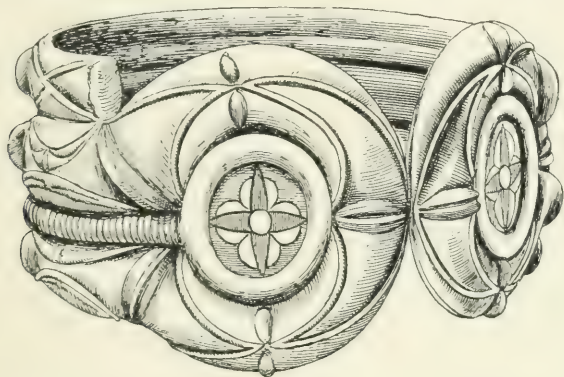


Fig. 138.—Enamelled bronze, Drummond Castle, Perthshire. $(\frac{1}{2})$

consists of graceful curves in relief with oblique projections at intervals somewhat resembling the lip-pattern (p. 103) which is seen on either side of the point of junction. The oval space within the ring-ends is filled with red and yellow enamels in a cruciform and quatrefoil pattern, and the bronze plate on which the enamels are set rests on an iron plate (seen from the back) and is kept in position by bronze bands passing along the grooves between the heavier coils. These smaller bands, which have a casing moulded to imitate coiled wire, are therefore constructional in the present instance, but in time become a mere ornamental feature. How long this evolution occupied is at present uncertain, but, according to all available evidence, the yellow enamel shows that these two specimens belong at the earliest to the Roman period, and may possibly be some centuries later than the conquest under Claudius. Examples have been

found with a skillet of pure Roman work at Stanhope, Peebles-
shire, and analysis shows that one Aberdeenshire specimen con-
tained three times as much zinc as tin, the copper amounting to
88 per cent.   Zinc first appears in Roman alloys, at the beginning
of the Christian era.

It would be hard to prove that the enamelled bronzes found in
Scotland are earlier than the first century of our era ; and it is
probable that Late-Keltic art in Scotland began to flourish during
the Roman occupation of the southern half of our island.
Brooches of the early La Tène type are comparatively numerous
in England (p. 100), but true examples, with bilateral spring and
open foot, have not been found in Scotland, though a few deriva-
tive forms and even Italian specimens are exhibited at Edinburgh :
of the latter, two localities are known.   Remoteness from the
Continent would at that time account for a tardy adoption of
artistic motives, as well as for their retention after new models
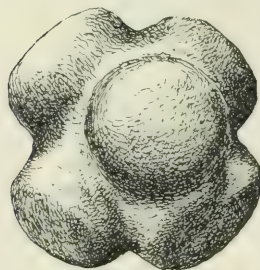


FIG. 139.—Facetted stone,
Scotland.   (½)

had been introduced into more favoured
regions.   It was in the year 80 A. D. that
Agricola first led a Roman army across
the border and established between the
Firths of Forth and Clyde a line of forts
that were merged in the wall of Anto-
nine about the middle of the second
century.   But the Caledonians asserted
their independence from time to time,
and the Roman occupation of the Low-
lands was neither so complete nor so
prolonged as that of southern Britain,
while the Highlands were practically
untouched by the Romans.   Tacitus
regarded the red hair and large limbs of the Caledonians as a proof
of their German origin.

Other remains from Scotland here exhibited (Case 51) call for
some remark.   The large series of ornamented stone balls practi-
cally confined to that country (one from Ireland below) is
represented by two examples, of which one is covered with
bosses, and the other (fig. 139) is facetted as is frequently the
case.   Their use is still uncertain, but it has been suggested that
those with projecting knobs or discs were weapons of the
'morning-star' type, a broad strip of raw hide being allowed
to shrink over the ball to secure a hold, and circular holes cut for
the knobs to pass through.   Other patterns could not well be
treated in this manner, and no clue has yet been obtained from
associated objects, though smoothly rounded and polished speci-
mens have been occasionally found in apparent connexion with
interments.   Only one is known of bronze, but various qualities
of stone were used for the purpose.   Their exact date is also

unknown, but they may be provisionally assigned to the pagan Roman or post-Roman period. The peculiar melon-shaped beads of turquoise-coloured glass, common on Roman sites in Britain and elsewhere, perhaps suggested the form of the beads forming the back portion of the remarkable bronze collar (fig. 140) from Lochar Moss. It was found inside a small bronze bowl of excellent workmanship, and has a rigid front ornamented with a running scroll of peculiar form. This, to all appearance, is a development of the pattern seen on the Bapchild 'terret' and other specimens in enamel, and appears to be ultimately derived from a classical source (p. 19). Similar beads, apparently belonging to a collar of this form were found at Hyndford Crannog,



Fig. 140.—Beaded collar, Lochar Moss, Dumfriesshire. ($\frac{1}{3}$)

Lanarkshire, and a similar collar, with beads of another pattern, has been found near Rochdale.

The jet balls found at Inverury, Aberdeenshire, are pierced, and were probably the heads of iron hair-pins : amber specimens with bronze shafts have been found in Switzerland, and appear to have radiated from a leather band placed on top of the head.

Much that has been said with regard to the comparatively late development of Keltic art in Scotland, applies with still greater force to Ireland, where the Roman soldier never gained a footing and Roman relics are extremely scarce (*Central Saloon*, Case D). It is true that such illuminated manuscripts as the *Book of Kells* and the *Book of Durrow* exhibit a truly marvellous technique, and may in a sense be regarded as the masterpieces of Keltic art ; but these all date from the Christian period, and must be excluded from a survey of the earlier productions, such

as those of Southern Britain. It is certainly in what is now
England that the earliest specimens of the art are found and are
to be expected, while there is nothing of the style in Ireland that
can with confidence be dated before the beginning of our era.
The sculptured standing-stones of Turoe (Co. Galway), Castle
Strange (Co. Roscommon), and Mullaghmast (Co. Kildare), which
have recently received attention, are executed in a style essentially
later than much in England, though they may well date from
a time preceding the general acceptance of Christianity in Ireland.
The absence of true La Tène brooches is a further argument
against an early introduction of the art, the graceful specimen
illustrated (fig. 141) combining features of successive types. The
Limavady gold torc, again, preserves some points of resemblance
to Gaulish types (fig. 51, no. 9), but is evidently much later than
the tubular collar found at Frasnes, near Tournay, with coins
that have been dated about 80 B.C. (reverse like plate VII, no. 3).
Another gold torc at Dublin, from Clonmacnoise, King's Co.,



seems to be nearer
the same prototype,
but again later than
the Belgian speci-
men, and has at the
back what seems to
be a copy in gold of
a glass-bead pattern
common in the
island. A series of
such beads, with
other patterns not
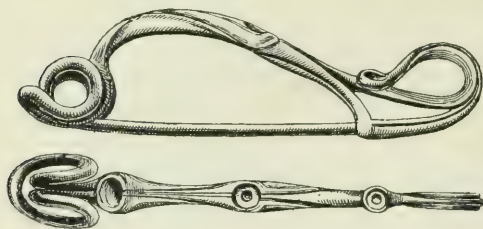
FIG. 141.—Bronze brooch, Clogher, Co. Tyrone. ($\frac{2}{3}$)

confined to Ireland, may be seen in the *Glass and Ceramic Gallery*
(Case M), but no precise date or sequence has yet been determined
for them. The three specimens illustrated (fig. 87, nos. 4–6) are
of dark-blue glass, and spiral threads with light markings are applied
to the surface in a variety of patterns. Others, of spindle-whorl
form, are often blotched with colours, and another type has knobs
as well as spiral coils ; while the dumb-bell and Roman melon
shapes also occur.

There are at Dublin two Italian brooches of early types (as
fig. 26, nos. II d, II e), but, as generally in the British Isles, there
is no definite information about them, and some may have been
brought from Italy in recent times. Other brooches known to
have been found in Ireland are evidently derived from La Tène
models, and are sometimes of remarkable elegance (fig. 141), but
here again there is a considerable deviation from the original.
This of course does not necessarily imply any considerable interval
of time, but everything points to a protracted development of
other ornamental objects. For instance, the evolution of the

hand type of pin—so called from the resemblance of its head to the front aspect of a closed hand—seems to have been very gradual over several centuries, the specimen from Moresby, Cumberland, being a connecting link between the ibex-headed pins of the first or second century (one from Sandy, Beds, with accompanying vase), and the enamelled specimens, sometimes of exceptional size, that may be assigned to the Christian period (*Anglo-Saxon Room*, Case H). Those with the ring-head, ornamented to suggest the head of an ibex, seem in their turn to be derived from a form common in our islands, with the ring-head in the same plane as the stem, the latter having a shoulder near the head to prevent the pin falling out of the cloth it was used to fasten. One of this type was included in the Hagbourne Hill hoard (p. 103), and others are shown from Bury St. Edmund's and the Thames at Hammersmith (fig. 142), one of the latter group having transverse grooving.

The crannog or lake-dwelling at Lisnacroghera, near Brough-shane, co. Antrim, is well known, and has proved to be rich in Late-Keltic antiquities, of which the finest is the engraved bronze



Fig. 142.—Bronze ring-headed pin, Thames at Hammersmith. ($\frac{2}{3}$)

scabbard (fig. 143) here exhibited with other remains from the site. Little notice was taken of the pile-structure that existed where the relics were found, but it seems to have resembled that at Glastonbury (fig. 106). Weapons were comparatively plentiful, as many as four swords being recovered, mostly in a damaged condition ; the scabbard-chapes were of the common Irish type (specimens in Case 51, and fig. 143), derived from La Tène forms (fig. 48, no. 3) but easily distinguishable as a local adaptation. The designs engraved on the bronze scabbards are of the highest merit, but have no early features, one having the basket-pattern seen on the mirror from St. Keverne (fig. 91) ; and the cup-shaped hollows may have been originally filled with enamel as a ring pin-head undoubtedly was. The sword has a curved guard, as in La Tène II period, corresponding to the mouth of the scabbard. The bronze ferrules exhibited were more probably the heads of linch-pins (as at Stanwick) than counterpoises for the butt-end of spears, and the same pattern was found at Harray broch, Orkney. An iron adze and sickle (as from La Tène, Case 77) should be noticed ; and it should be added that swastika

and fret designs were found on bronze mountings in the crannog.

A facetted stone ball (like fig. 139) from Ballymena, co. Antrim, has been already referred to as a Scottish type, and a general resemblance between Irish bronze bowls and that from Lochar Moss should be noticed. The pair of stout horns, which may have been enamelled, probably served some ornamental purpose on a chariot.

The bronze disc (fig. 144), with sunk centre and ornament in relief, is a fine specimen of its class, of which six are preserved at Dublin, all presenting the same essential features. Their use is problematical, but it is conceivable that they were set on the ground or on a pedestal, for burning incense, the cup-shaped hollow suggesting the top of a Roman altar (examples in *Roman Gallery*). The pair of bronze spur-shaped objects found near Galway with a bridle-bit seem to have formed part of a horse's equipment, but are shown, by the wear of similar examples from Ireland, to have been suspended, and not worn upright over the horse's head. A larger specimen is also shown in this case, as are several bridle-bits of a type common in Ireland, the two larger limbs of the bit being arched and expanding outwards beyond the junction with the rings. There is a good specimen of this type from co. Wicklow, but besides this the more usual pattern, common in Britain, was also used in Ireland.

The curiously-shaped iron bars exhibited in Case 58 have been recently shown to confirm and illustrate a passage in Caesar's account of Britain relating to currency. Coinage had already been introduced (p. 85), but, as in parts of Africa at the present day, bars of iron were in use as a medium of exchange, and the distribution of known specimens indicates that this more primitive form of currency was confined, at least in Caesar's time, to the interior. They have been found in varying quantities in seven English counties, sometimes on known Early-British sites (Glastonbury and Ham Hill, Somerset), and even within camps of the period (Hod Hill and Spettisbury, Dorset; Meon Hill and Bourton-on-the-Water, Gloucestershire; and Hunsbury or Danes' Camp, near Northampton). Two large deposits were found on the eastern slope of the Malvern Hills, Worcestershire, each consisting of about 150 speci-

mens carefully buried 3 ft. deep, with an average length of 22 in.
Examples of larger size are shown from Winchester, Hants, and
two have been published from Ventnor, Isle of Wight; while
a bundle of still larger and heavier bars, of which one is exhibited,
were found in the Thames at Maidenhead, Berks. It should be
noticed that no examples are known to have been found in the
south-eastern or eastern counties, the proximity of which to the
Continent would account for the somewhat higher stage of culture
indicated by a coinage. In the districts beyond, coins may have been
unknown till imperial times; and the absence of currency-bars



Fig. 144.—Bronze disc with well, Ireland. (¼)

from the sites of Romano-British villages explored by Gen. Pitt-
Rivers near Rushmore (under 10 miles from Hod Hill and
Spettisbury) suggests that there was no overlap of iron currency
and Roman coinage in that district.

Perhaps the most significant discovery of iron currency-bars
was made at Glastonbury, on the site of the marsh-village, where
there is no trace of contact with Roman civilization, and the
barest evidence of a native British coinage. Of the two speci-
mens, one was 26 in. long and belonged to the smallest type
illustrated (fig. 145), weighing 4,653 grains; while the other,

though 5 in. shorter, weighed 9,098 grains. These weights may
fairly be connected with a standard given by a bronze cheese-
shaped weight (specimens in Case B) in good condition found
with numerous horse-trappings of Late-Keltic work near Neath,
Glamorganshire. It is marked I and weighs 4,770 grains, while
a stone weight at Mayence, of similar form and with the same
mark, is only 3 grains less in weight. This does not agree with
any well-known standard of the ancient world, and may be of
British origin ; and if the Neath weight be taken as the unit, the



iron bars may be classified under three
denominations, viz. once, twice, and
four times the unit of 4,770 grains
(309 grammes), as the Thames specimen
exhibited, in spite of rust, is only about
300 grains short of four times the unit.
The middle size is the most usual, being
known from nine of the sites mentioned
above, and it should be noticed that
specimens of the smallest size have
been found in association with them
on two occasions. Comparison with
British swords of the period will show
that these bars contain too much metal
for such weapons, to which, however,
they bear a superficial resemblance.
All the specimens have the same kind
of blade, flat with blunt vertical edges,
but each denomination has a different
form of handle, which may be recog-
nized from the illustration of the three
sizes (fig. 145).

It may be presumed that the inhabi-
tants of central Europe had a coinage
before the Britons, but little is known
as to the date or origin of the large
series called *Regenbogenschüsselchen*
(little rainbow dishes). These are
mostly found in Bavaria and Würtem-

Fig. 145.—Iron currency-
bars, South England. ($\frac{1}{10}$)

berg, especially in the upper Danube valley, but isolated specimens
are known from Switzerland and Bohemia, and even beyond the
Thuringian Forest. The coins are of electrum (gold with silver),
and cup-shaped, the German name being probably derived from
the superstitious belief that they may be found where the rainbow
meets the earth, many having been washed out of the earth by
heavy rain. Another explanation is that the device on a certain
number of them was taken for a rainbow, though it is more like
the rising sun. The concave face occurs as the reverse on many

British coins, and the series now to be considered includes more or less successful imitations of the gold stater of Philip II of Macedon, who, about 356 B. C., acquired the rich gold mines of Crenides (Philippi). He died in 336, but his coins were eagerly copied by Gaulish tribes, and the type is thought to have passed to Britain about 200 B. C. The Philippus (fig. 146) weighed 133 grains, and the British series shows not only a falling-off in workmanship due to continual copying, but also a gradual diminution in weight. The electrotype series exhibited in a frame adjoining Case 60 illustrates these changes, but only a few stages can be noticed here.

A base-silver coin (plate VII, no. 1) is placed first as being nearer a classical prototype than most, but its relation to the following is not quite clear. It belongs to a type common in the Channel Islands and Armorica, and British specimens generally come from our south-western counties. Their distribution is certainly in favour of Prof. Ridgeway's view that they were used on the tin trade-route (p. 85), and he would connect the type not with the Philippus, but with the silver coinage of Massilia, Rhoda, and Emporiae. In that case the reverse would represent a centaur or human-headed Pegasus, and the obverse the female head with dolphins, derived from the coins of Syracuse, the type being, perhaps, the earliest in Britain ; but late specimens are said to have been in association on more than one occasion, and Sir John Evans, who has traced the evolution of the



FIG. 146.—Gold coin of Philip II. of Macedon. (½)

different types, classes the Channel Islands coinage as later than the gold series.

The relation between plate VII, no. 2, and the Philippus (fig. 146) is fairly obvious, though much has been misunderstood by the die-sinker. The obverse has the locks of hair and the laurel wreath much exaggerated, and drapery added at the neck, while the reverse has a fret-pattern in the exergue, instead of the name Philip, and only one horse is shown, the driver being placed above in the position usually occupied by a Victory on coins of Syracuse. The weight at this early stage is about 118 gr., which is reduced to 95 in the next piece illustrated (no. 3). Here the front locks of hair, the wreath, and drapery dominate the obverse ; and the charioteer on the other side is represented by pellets (cf. fig. 6). The horse has become still more grotesque, and the helmet below is replaced by a pellet. On no. 4, which weighs about the same as the last, the drapery is omitted and the bandlet across the wreath exaggerated, while the limbs of the horse are separated and the head turned back. At the stage represented by no. 5 the weight is 82 or 83 gr.,

and the laureate head has become a cruciform pattern, the drapery at the neck still appearing below, and the transverse band becoming another wreath, while the crescent locks are placed at the centre.   The reverse is better than usual, the wheel below the horse being, perhaps, a sacred symbol of the Gauls (p. 136), and the star with curved rays replacing the charioteer ; the wheel of the chariot still remains as a pointed oval on the left.   The next (no. 6) introduces the inscribed series which, for various reasons, is considered to be, on the whole, later than the uninscribed.   It is a coin of Tasciovanus, and weighs 85 gr., with the obverse derived from no. 5, which also has a somewhat similar reverse. The next type (no. 7), of 81–86 gr., is of Dubnovellaunus, a British prince mentioned on the monument erected in honour of Augustus at Ancyra in Galatia.   The laurel wreath is all that remains on the obverse, and the reverse has the common ring-and-dot above the horse and a palm-branch below.   The reverse of the next coin (no. 8) recalls no. 5, but also has a branch below the horse : the obverse seems to be derived from the wreath as represented on no. 7, and the weight varies from 84 to 86 gr.   The specimen illustrated shows little of the lettering at the base of the reverse, but others clearly have the name Addedomaros, the final -os being the Gaulish spelling.

Owing to Roman influence, a new style is next introduced ; and while the following can be safely attributed to the century between Caesar's invasion and the Claudian conquest, the truly native series must be regarded as earlier.   The lettering on the obverse of no. 9 stands for Verica, while that of the reverse shows him to have been one of the sons of Commius (p. 154).   The weight is 82 gr., and the vine-leaf, though conceivably evolved from the tangled lines on certain native types, was a common motive among the Romans, and occurs in glass-mosaic (*Glass and Ceramic Room*, Case D).   The same may be said of the ear of corn on no. 10 (weight 81 gr.), a coin of Cunobelin struck at Colchester (*Camulodunum*).   Britain exported a large quantity of corn at this time, and the wheat-ear is familiar on Greek coins of Metapontum, Lucania.   Another Roman device is the eagle on no. 12, a coin of Eppillus, Verica's brother ; this weighs about 18 gr., and like many other extant specimens, is meant to be one quarter of the unit weight.   The reverse seems to prove that Eppillus was king of the Atrebates, whose capital was at Silchester (*Calleva*), though most of his coins are found in Kent.   The head of Medusa seen on coins of Tincommius in the series from the sea-shore between Selsey and Bognor (*Gold Ornament Room*, Case L) may be another Roman innovation, while the legends are in Roman characters.

Another type of Verica is no. 11, the lettering on this and no. 9 being placed on opposite faces ; and the last (no. 13) should probably come early in the inscribed series, the reverse having points

PLATE VII. TYPES OF EARLY BRITISH COINS (⅓).

[See p. 151.

of resemblance to nos. 3 and 5, and the weight being 83 or 84 gr. Boduoc has not been identified, but the name occurs on a Christian tombstone at Mynydd Margam, Glamorganshire, and Boduogenus on the handle of a Roman skillet in Case C (*Central Saloon*). These specimens are found in the west of England, and even in Scotland (Dumfries), and may be connected with the Boduni or Dobuni of Gloucestershire.

The two gold coins (fig. 147) found on the western border of the urn-field at Aylesford (p. 122) may have been unconnected with the burials or with one another; but they help to illustrate the uninscribed British series, and belong to types represented also in Gaul. That on the left is a quarter-stater, at about the same stage of development as no. 3, the drapery showing at the neck, while the reverse is comparatively good. The other is



*FIG. 147.—Two British coins, of gold, Aylesford. (¹⁄₁)

a stater of Kentish type, the obverse being blank, as is frequently the case: the reverse is not unlike that of no. 13.

There were many other types common to Gaul and Britain, both of inscribed and uninscribed coins, some of which are exhibited in this department; and there were several denominations, viz. the gold stater of about 84 gr. and its quarter; the silver piece of about 21 gr.; and three sorts of bronze money, the normal weights of which were about 68, 34, and 17 gr. On the whole, the gold coinage was the earliest, and, as elsewhere, gradually disappeared under Roman influence, to which the silver and bronze currency must be mainly attributed. The silver was fairly pure, except in the Channel Islands coinage; but in some cases the metal cannot be exactly determined. Besides tin, an alloy of copper, zinc, lead, and tin, called *potin*, was used, and the material called *billon* consists of about one-fifth silver to four-fifths copper.

[Genealogical Tables on next page.]

# TABLES OF ANCIENT BRITISH KINGS.

**COMMIUS**
Belgic ruler of south-east Britain, perhaps also chief of the Atrebates in Gaul.

| TINCOMMIUS | VERICA | EPPILLUS |
|---|---|---|
| Probably ruler of the Regni (near Chichester). | King of Atrebates (?) in Britain : not Berious who fled to Claudius, 43 A.D. | King of the Cantii (Kent), and later of the Atrebates (?). |

## THE PRINCIPAL RULERS IN BRITAIN BEFORE THE ROMAN OCCUPATION.

Names of contemporaries are here printed on the same level. Names underlined appear in full or in abbreviated forms on extant coins : other names are known to history, and the relationships are fairly well established.

Details added to each name are derived from the historians, or inferred from the style and distribution of the coins.

**CASSIVELLAUNUS**
Ruler north of Thames : died about B.C. 47.

**TASCIOVANUS**
Reigned about 30 B.C.-A.D. 5. Mint at Verulam (St. Albans).

**EPATICCUS** probably ruler of Catyeuchlani (Catuvellauni = Bucks & Oxon.). Mint at Silchester (?).

**CUNOBELINUS** (Shakespeare's Cymbeline) King of south-east Britain. Reigned about B.C. 5-A.D. 40/43. Mint at Colchester.

| ADMINIUS | TOGODUMNUS | CARACTACUS | Other sons. |
|---|---|---|---|
| fled to Rome about A.D. 40. | died A.D. 43. | (Carataeus) Prisoner at Rome, A.D. 51. | |

# INDEX